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UHR Home Products
ILD984903278
Superfund/IRS



CERCLA

Preliminary Assessment Report



Illinois Environmental
Protection Agency
P.O. Box 19276,
Springfield, IL 62794-9276

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CERCLA Preliminary Assessment Report
for
UNR Home Products
ILD 984903278

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EXECUTIVE SUMMARY

UNR Home Products, Illinois Route 133 West, Paris, Illinois (ILD984903278) was placed on the Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) on July 20, 1992 as a result of discovery action initiated by the Illinois Environmental Protection Agency. This action was taken in response to a request from an Illinois EPA Field Operations Office concerning the refusal of UNR to remediate areas of known metals contamination.

UNR Home Products is an inactive manufacturing facility located on a parcel of land comprised of approximately 55 acres. However, the facility's large warehouse is used by Midwest Cable for storage and office space. The site is located in the southwest quarter of Section 2, Township 13 North, Range 12 West, located just west of the city limits of Paris in Edgar County. In order to reach the site from Interstate 57, take exit 203 East and travel approximately 30 miles on Illinois Route 133. The site is located on the north (left) side of the road before entering the Paris city limits (See Figures 1,2 and 3). Manufacturing activities at the facility ceased in 1989.

The UNR Home Products site is bounded to the north by the Illinois Central Gulf Railroad, to the east by a residential (northern portion of the site) area and an industrial area

(southern portion of the site), to the west by agricultural land, and to the south by agricultural land (See Figure 4).

The property is L-shaped, with an office building and a small warehouse at the entry point in the southern portion of the site. A paved driveway runs north from Illinois State Route 133 leads (north) to the main facility buildings consisting of the manufacturing plant and warehouse. A vacant area consisting of approximately 15 acres lies behind the manufacturing plant and warehouse. According to IEPA Bureau of Water files, this area once contained three unlined lagoons, a sanitary lagoon and two industrial lagoons.

An unlined lagoon once existed behind the small warehouse located in the southern portion of the facility. In a July 6, 1973 letter to the Agency, UNR stated that the company did not discharge anything to this lagoon and had been taking steps to fill the lagoon. Evidence of this lagoon's existence was not apparent during the November, 1993 CERCLA reconnaissance visit by this author.

History

The site was in operation from 1966 until 1989. Prior to 1966, the land was used undeveloped and for agricultural purposes. Eagle-Picher Industries' Lusterlite Division began operations in 1966, producing unknown enamellized products. UNR began leasing the enamalizing facility from Eagle-Picher

in 1973 and purchased the property from them in 1988. UNR produced enamalized sinks, plumbing fixtures and indoor barbeque grills until manufacturing operations ceased in 1989.

Processes

Although the exact industrial processes used at the UNR facility are currently unknown, the following represents a summary of the enamellizing process and was taken from the Concise Encyclopedia of Chemical Technology and describes the enameling process.

"The porcelain enameling process involves the re-fusing of powdered glass on the metal surface. The powdered glass is prepared by ball-milling a porcelain enamel glass engineered for specific properties. First the glass is smelted from raw batch materials...Continuous smelters, wherein the thoroughly mixed raw batch is fed in at one end and molten glass is flowing out at the other end, are common in commercial operations. Decomposition, gas evolution, and solution occur during smelting. After the molten glass has been smelted to a homogeneous liquid, it is poured in a thin stream of water or onto cooled metal rollers. This quenched glass, termed 'frit', is a friable material easily reduced to small particles by a ball-milling operation. Ball-milling the glass 'frit' into small sized particles can be carried out whether the 'frit' is wet or dry. Dry powders are used for dry-process cast-iron enameling and for electrostatic application on sheet steel. Dry powders are also prepared and marketed for the subsequent preparation of slurries and slips used in the wet-process application techniques."

Regulatory History

This section discusses the applicability of any other statutes with regards to the UNR Home Products site in Paris,

Illinois. The site does not appear to fall under the jurisdiction of the Resource, Conservation, and Recovery Act (RCRA), Atomic Energy Act (AEA), Toxic Substances control Act (TSCA), Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), or the Uranium Mill Tailings Radiation Control Act (UMTRCA).

In 1989, Goodwin & Broms, Incorporated of Springfield, Illinois was contracted by the Paris Economic Development Corporation to perform an environmental survey of the UNR property. This preliminary report discussed hazardous materials abandoned by UNR within its production area, which were held over 90 days, and became an unpermitted hazardous waste storage facility (a copy of this report may be found in Section 4 of this report). This situation is believed to have been corrected. The report also discussed the metals contamination within the industrial lagoons, and the possible contamination of soil directly behind the warehouse portion of the site.

The conclusion of Goodwin & Broms with regards to this preliminary report was that "None of the problems identified in this report are of sufficient magnitude that an interested prospective buyer should be deterred from continuing negotiations for purchase of property."

Goodwin and Broms were also contracted by Bootz Manufacturing of Evansville, Indiana in 1990 to conduct an environmental assessment of the site because Bootz Manufacturing was interested in purchasing the inactive facility. The lagoons were sampled in March, 1990 by Goodwin and Broms with all three found to contain elevated levels of metals. During this sampling event, Goodwin and Broms also sampled the northeast corner of the property, as well as the three acres existing between the facility and the residential area. Elevated levels of nickel and cadmium were samples.

The 1990 Goodwin & Broms report stated that the following would be of concern to anyone interested in purchasing the UNR property.

The Industrial Lagoon - "The presence of the industrial lagoon is a significant encumbrance on the UNR property. This lagoon is not designed to current standards, in that it does not have an impermeable liner to prevent exfiltration of contaminated water through the walls or bottom. Without question, provisions will be needed to accomplish closure of the industrial lagoon and restoration of that area of the property to a safe condition." Management of contaminated sediments would also pose a problem.

Metals contamination of the sanitary lagoon was also mentioned.

Contaminated Soils - Soil samples were taken from six borings using a split spoon. "The samples were taken from a depth of about six inches to about 30 inches, but due to the incoherent properties of some of the soil material, much of the sample was lost as the sampling device was withdrawn from the borehole, and therefore there was considerable vertical mixing of some of the samples. Nevertheless, the samples are regarded as representative of the top two feet of soil...Each of the six soil samples exhibited elevated concentrations of at least some of the heavy metals. Four of the six soil samples showed presence of toluene; three showed chloroform; and one showed methylene chloride. These VOC's are present in

very small concentrations. No SVOCs were found...The presence of the heavy metals, because the location of the sampling points was based in large part on visual evidence that the surficial soil material was not of natural origin. It is believed that, in fact, the surface soil in the areas sampled is comprised at least in part of waste from porcelain enameling process. Visual observations indicate that a large fraction of the northeast tract lying east and north of the manufacturing building is covered with this material. It may be that, due to the marshy character of this portion of the property, the waste was used as fill material over a period of many years. Groundwater samples taken from five of the same borings were all below laboratory detection limits for the metals tested. This suggests that the metals are present in the soil in an insoluble, immobile form. One groundwater sample (B-2) was reported to have a trace of toluene present ...While there is no apparent environmental threat of an imminent nature, the presence of the toxic heavy metals in surface soil over such a large area will almost certainly be cause for concern by the environmental regulatory authorities. Apart from the possibility of groundwater contamination, the risk of human exposure by inhalation of windblown particles and the potential for offsite migration by vehicle or pedestrian trackout will likely receive scrutiny."

A copy of the Goodwin & Broms report, in its entirety, is available in Section 4 of this report.

On February 27, 1981, a spill of a milky white material (which reportedly had a solvent-like odor) was reported by an operator of the Paris water treatment plant. He said that the spill in Boatman's Creek ended up in Twin Lakes via Sugar Creek. The operator took samples of the same milky white discharge from the ditch near the field tile that drains UNR.

A representative of the IEPA Champaign field office met with the Paris water plant operator and they in turn met with representatives of UNR. UNR reported that on February 17,

1981, they had had Donovan Oil service from Decatur come to pump out thirty 55-gallon metal drums which contained waste hydraulic fluid and waste drawing lubricant. Due to the extreme cold during that time, the oil service was unable to pump the drums dry and they retained a certain amount of residue mixed with water and turned to ice. Later the following week, a maintenance man dumped the residue, believing that it was only water. The material ran into a ditch, through a grate and ended up in the tile system to Boatman's Creek.

The IEPA representative stated that the severity of the problem was minimal, in that it did not appear to kill any fish nor cause any other significant damage. He also stated that UNR did violate Water Pollution Control Regulations in that the discharge violated Rule 403 of Chapter 3: Water Pollution.

According to the Agency's Bureau of Water files, there have been no cleanups at this site. According to IEPA Bureau of Water files, the industrial lagoons were drained under IEPA Division of Water permit 1991-HB-2463. Water from the lagoons was discharged slowly to the Paris wastewater treatment system so that the metal content of the discharge would not harm the POTW. The berms of the lagoons were then bulldozed. The work was performed by Memphis Environmental Center.

On April 1, 1991, a representative of the Agency's Pre-Notice program sent a letter to attorneys for UNR. The letter stated that the site would qualify for cleanup under the Pre-Notice Site Cleanup Program.

On April 19, 1991, UNR's attorneys sent a letter stating that they were declining any participation in the program.

According to IEPA Bureau of Water files, concern over the way that the lagoons were closed was related by a representative of the Agency's Champaign Field Office Section, Bureau of Water. The representative did not believe that UNR's attempt at cleaning up the lagoons solved the contamination problems at the site. The lagoons' berms were bulldozed in and no contaminated sediments were removed from the site. The sediments were mixed with a sludge stabilizer called Poz-O-Teck. After the sludge was mixed with the Poz-O-Teck, it was then spread over the site to the east of the facility, and used to help fill in the lagoons.

Reconnaissance Visit

On November 18, 1992, Mr. Mark Weber accompanied Ms. Kimberlee Hubbert of this Agency on the CERCLA preliminary assessment reconnaissance visit of the UNR site. During this visit, the following observations were made concerning the

site.

The UNR Home Products site is an inactive production facility, however, Midwest Cable Television (a subsidiary of UNR Home Products) is currently utilizing the warehouse for the storage of cable boxes and accessories. The property is currently owned by UNR Home Products.

As this author approached the site from Illinois Route 133 West, the former UNR office building and one of the two warehouses were noted to be at the entrance of the site. A paved driveway of approximately 500 feet led north to the second warehouse and the production building. To the east, a tree-line separates the parking lot from agricultural land and Eagle-Picher Industries (located to the south). A ditch runs along the tree-line, under the driveway, and extends westward ending in a wetland area.

A ditch which runs along the western boundary of the property flows north into a wetland area which exists in the northwest corner of the site. This wetland area is drained by a culvert to the north. The culvert lies at the bottom of a railroad embankment bordering the site to the north. Drainage from the site enters the culvert and empties into a wetland area located to the north of the site. The two industrial lagoons which were located in the rear of the facility are filled in and there was no visual evidence that they had existed. It appeared that the area had been used to grow crops, however,

Geology

Groundwater well logs obtained from the Illinois State Water Survey indicates that the top four feet of soil in the region of the UNR site is composed of black clay. Yellow sandy clay extends 12 feet to a depth of 16 feet, blue sandy clay - 34 feet to a depth of 40 feet, sand and gravel -two feet to a depth of 42 feet, clay strips -six inches to a depth of 42.5 feet, and sand -five feet to a depth of 47.5 feet. These unconsolidated deposits exist to a depth of approximately 135 feet. Shale, as part of the Mississippian system underlies the unconsolidated deposits to a depth of 268 feet. The Devonian system which can be found to a depth of 422 feet underlays the Mississippian. Underlying the Devonian system is the Dolomite of the Silurian system, to a depth of 694 feet.

Migration Pathways

Groundwater

Groundwater use in the 4-mile radius of the site is primarily for private residential use. Private wells within the 4-mile radius serve approximately 590 residents according to well logs provided by the Illinois State Water Survey. The nearest private well is located approximately 50 feet northeast of the site. This well draws its supply from glacial tills.

A listing of the number of private wells and users in each distance category is provided below. It may be noted here that the city of Paris receives its drinking water from an intake in Twin Lakes.

<u>Distance</u>	<u>Wells</u>	<u>Private Well Population</u>
0-1/4 mile	4	10
1/4-1/2 mile	6	15
1/2-1 mile	14	35
1-2 miles	36	90
2-3 miles	80	200
3-4 miles	98	244

There is no wellhead protection area within four miles of the site.

Surface Water Pathway

Surface water drainage from the site enters a culvert existing in the northwest corner of the site and flows in a northerly direction for approximately 50 feet before it enters a ditch north of the railroad embankment. The ditch ends in a wetland area.

At one time, however, a field tile existed on the UNR property and ran from the western boundary of the site to an intermittent creek known locally as Boatman's Creek.

Boatman's Creek is located approximately 160 feet west of the site. According to the most recent 7.5 minute USGS topographical maps, Boatman's Creek is identified as an intermittent stream. However, two reconnaissances have been undertaken at the site, and in both instances, Boatman's Creek was noted as holding at least one foot of water in numerous places. The author believes that Boatman's Creek may be a perennial stream.

The 15-mile surface water pathway begins in Boatman's Creek (believed to be a perennial stream) at the pre-existing field tile, flows north into Sugar Creek (a perennial stream) and then into Twin Lakes. The target distance limit ends in Sugar Creek approximately three miles after it flows out of Twin Lakes. Twin Lakes is the source of drinking water for the city of Paris' 9,885 residents.

A release to Boatman's Creek occurred in 1981, when Warren Brown, the city water treatment operator noted a milky-white substance in Twin Lakes. The substance was followed upstream to UNR Home Products. Bureau of Water files stated that drums holding lubrication oil and ice were found onsite. A portion of the ice that had been in the drums had melted, and leaked out of the drum, and followed the drainage route to Boatman's Creek.

According to U.S. Fish and Wildlife Service National Wetland

inventory maps, the northwest corner of the site is considered to be a wetland. The area was used as a sanitary lagoon, however, there is reason to believe that the lagoon had also received industrial discharges as well.

According to the Illinois Department of Conservation's listing of fisheries in Illinois, the area is stated to have one fishery: the Twin Lakes system. Twin Lakes is fed by Sugar Creek, which is partially fed by Boatman's Creek.

Air Pathway

With regards to the air pathway, the potential exists for particulate to be released from the site. The residential area to the east is partially separated from the site by a tree-line. However, the tree-line is sparse and therefore may allow for the release of particulate to the area. To the north of the site, a railroad embankment separates the site from the area to the north. To the west, there is open field. To the south, the areas of observed contamination are separated from Eagle-Picher Industries and the Illinois Department of Transportation offices by a tree-line and an agricultural field.

The approximate number of persons exposed to potential air-borne particulate is listed below:

<u>Distance</u>	<u>Population</u>
On a site	5
Greater than 0 to 1/4 mile	374
Greater than 1/4 to 1/2 mile	903
Greater than 1/2 to 1 mile	2012
Greater than 1 to 2 miles	5033
Greater than 2 to 3 miles	2177
Greater than 3 to 4 miles	244

Soil Exposure/Direct Contact

There are approximately 20 residents living within 200 feet of the UNR site. Access to the site is partially restricted. There is a three foot high fence which borders the site to the east, however, there are gaps in the fence, and children have been seen playing onsite. Analytical findings revealed the presence of high levels of metals in soils along the eastern portion of the site (Section 4).

The Paris High School's chapter of the Future Farmers of America has also used the site in the past to plant crops. Mr. Alan Hornbrook, the chapter's sponsor has been advised of the potential health threat due to repeated exposure to metals existing in onsite soils.

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Illinois State Geological Survey. Groundwater Geology in East-Central Illinois. Bulletin # .

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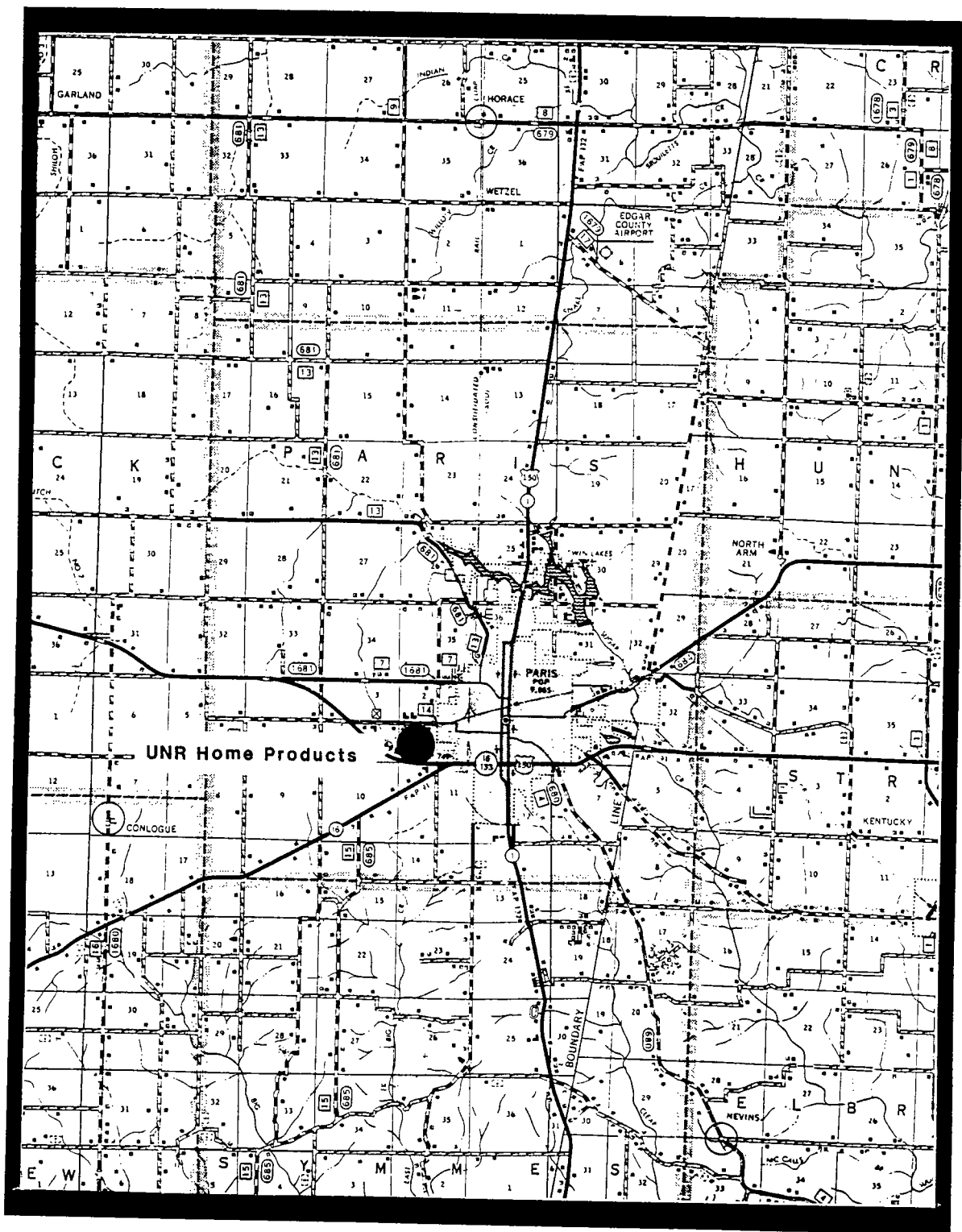
United States Geological Survey Topographical Maps:
Redmon, IL. Quadrangle: 1982.
Paris North, IL. Quadrangle: 1979.
Paris South, IL. Quadrangle: 1977.
Grandview, IL. Quadrangle: 1982.

SECTION 2



UNR Home Products

SITE LOCATION



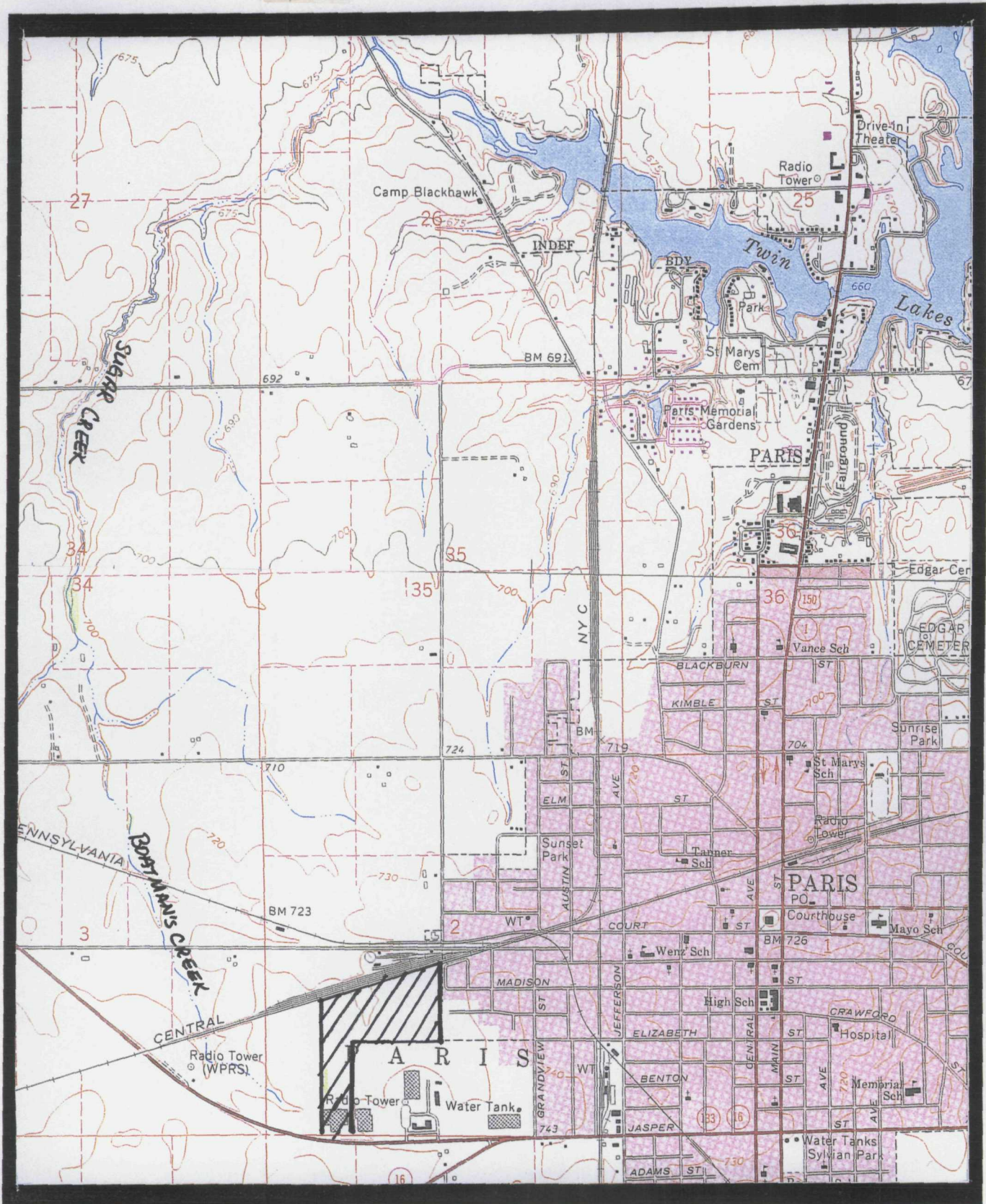
Source: IEPA, 1993. Base Map: Illinois Department of Transportation, 1986.

REGIONAL AREA MAP

1:10560

CERCLA Preliminary Assessment: UNR Home Products

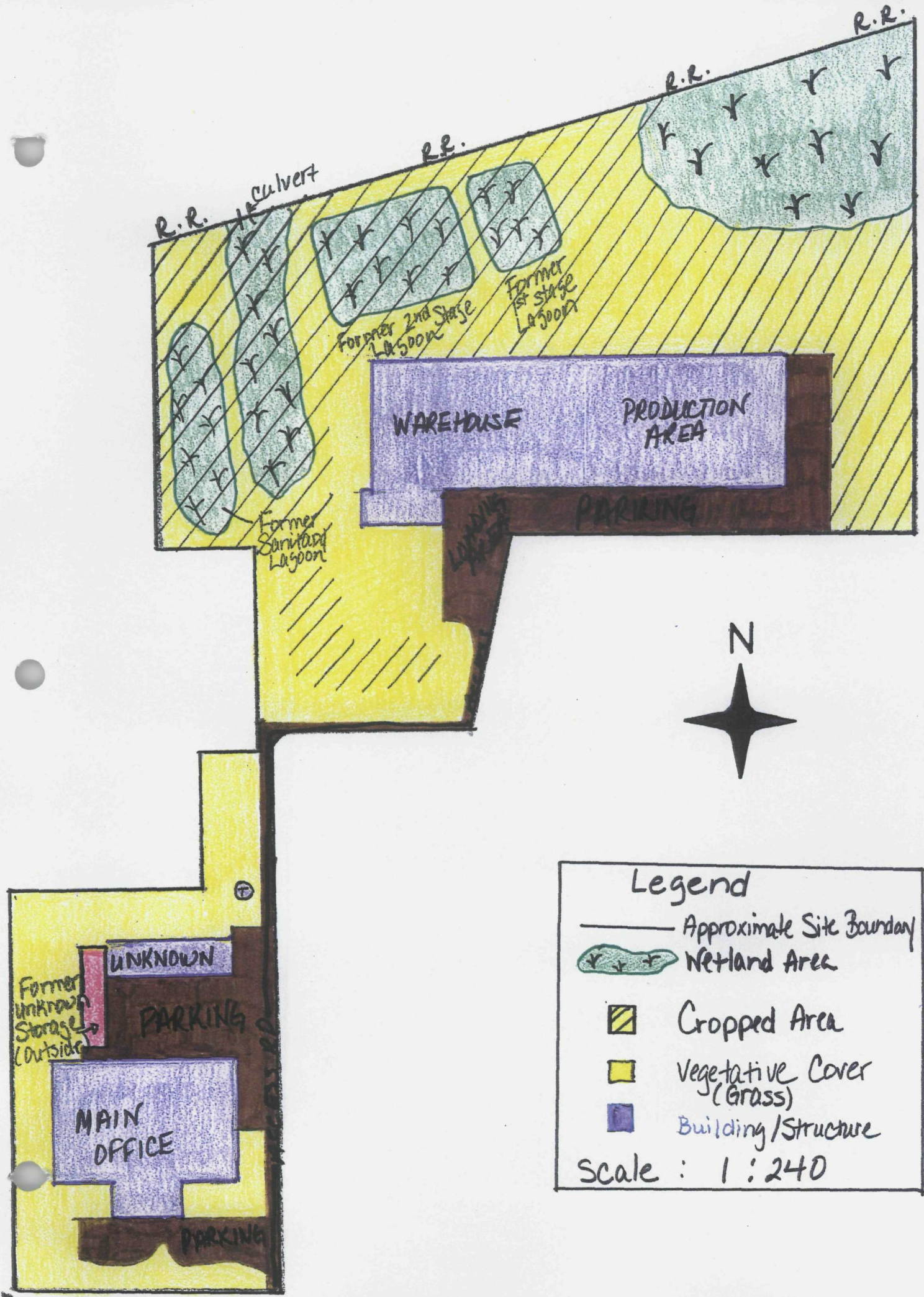
SITE TOPOGRAPHY







Source: IEPA, 1993. Base Map: Illinois State Geological Survey, Paris North Quadrangle 1979, Paris South Quadrangle 1977.

1:2000

CERCLA Preliminary Assessment: UNR Home Products

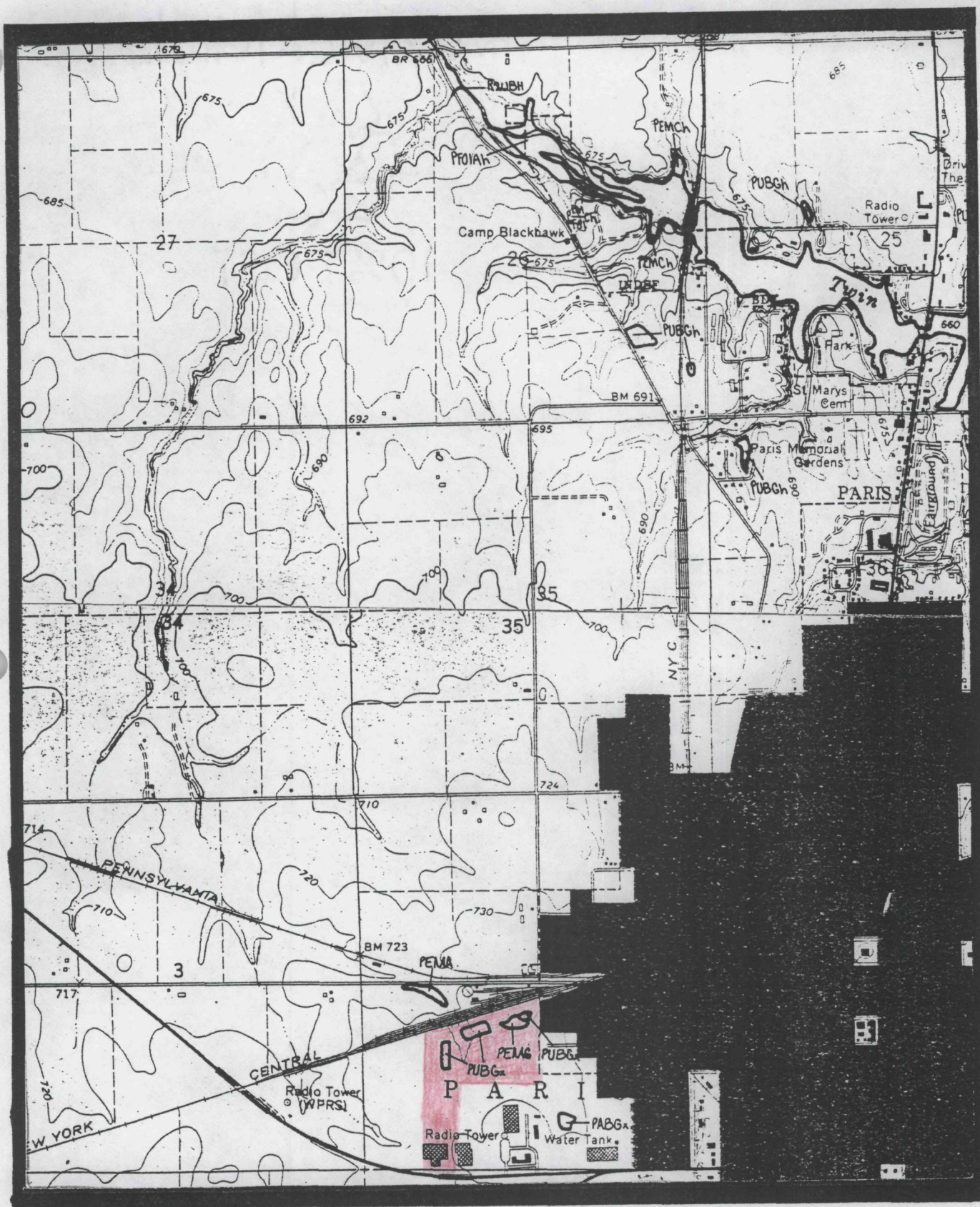


Legend

- Approximate Site Boundary
-  Wetland Area
-  Cropped Area
-  Vegetative Cover (Grass)
-  Building/Structure

Scale : 1 : 240

WETLAND MAP



Source: IEPA, 1993. Base Map: National Wetlands Inventory Map
Paris North Quadrangle 1988, Paris South Quadrangle 1988.

1:2031

CERCLA Preliminary Assessment: UNR Home Products

SDMS US EPA Region V

Imagery Insert Form

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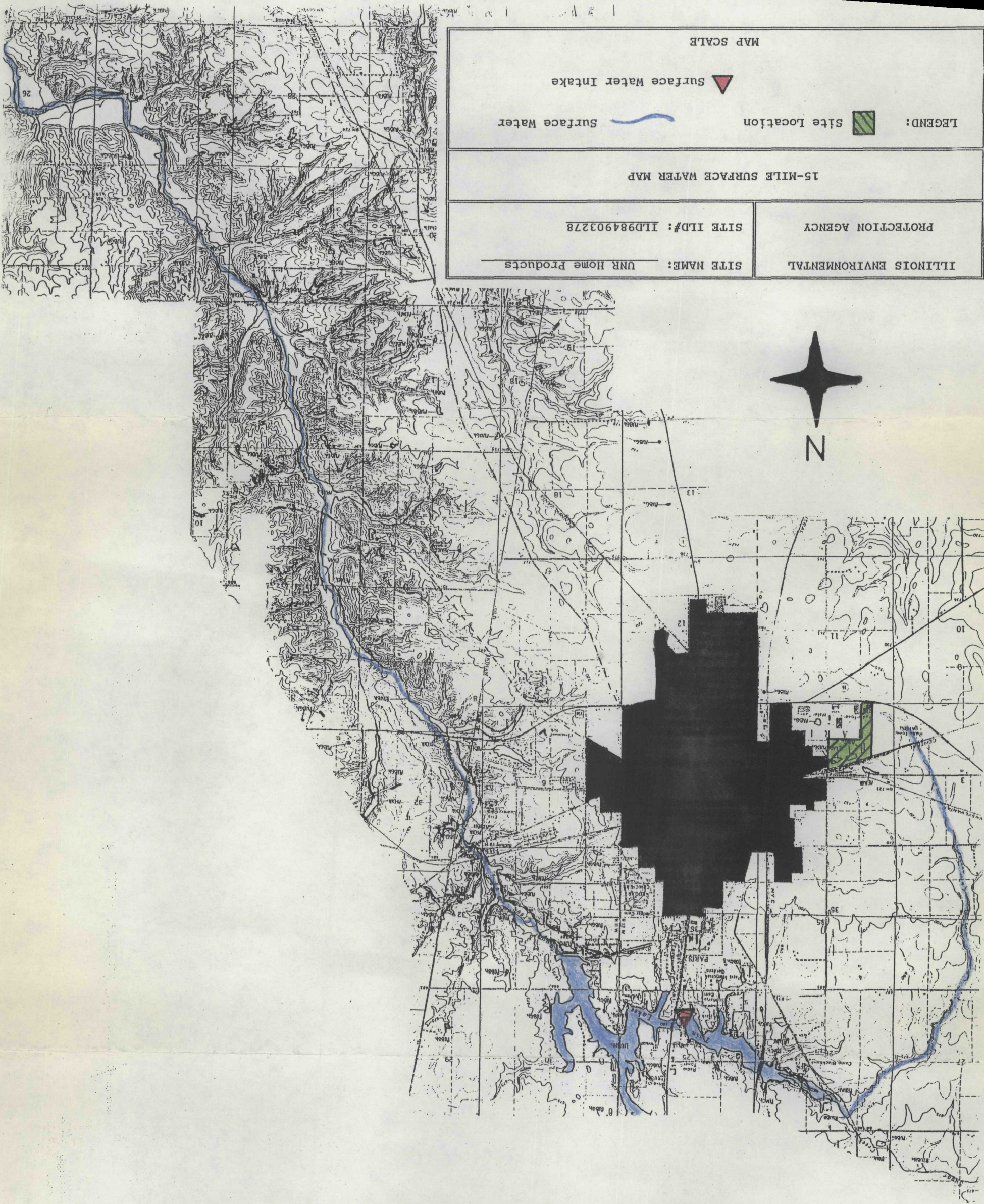
Specify Type of Document(s) / Comments:

OVERSIZED SITE MAP

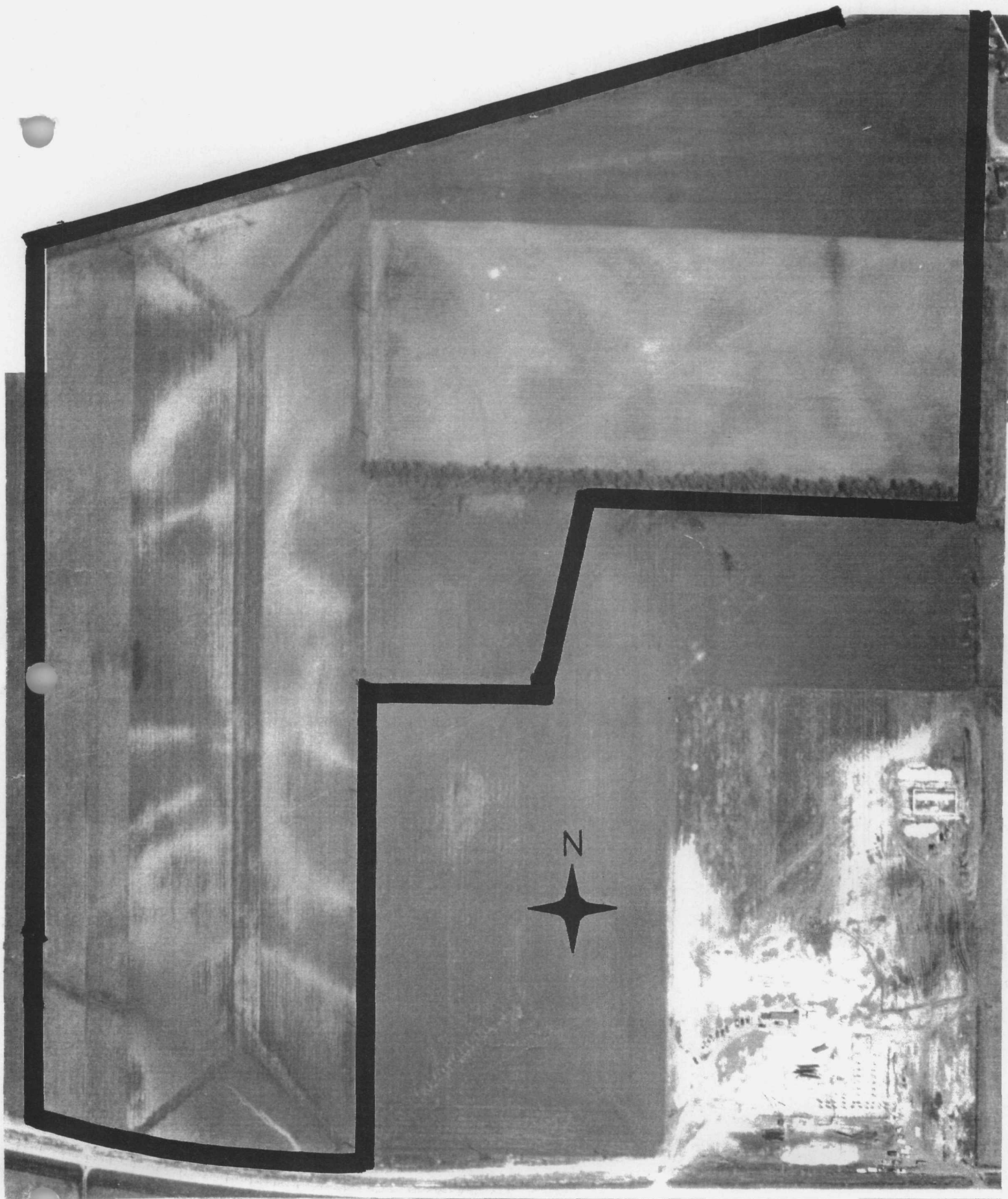
Document is available at the EPA Region 5 Records Center.

Specify Type of Document(s) / Comments:

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY		SITE NAME: UNR Home Products	SITE I.D.#: IIPD984903278
15-MILE SURFACE WATER MAP			
LEGEND:  Site Location  Surface Water  Surface Water Intake			
MAP SCALE			



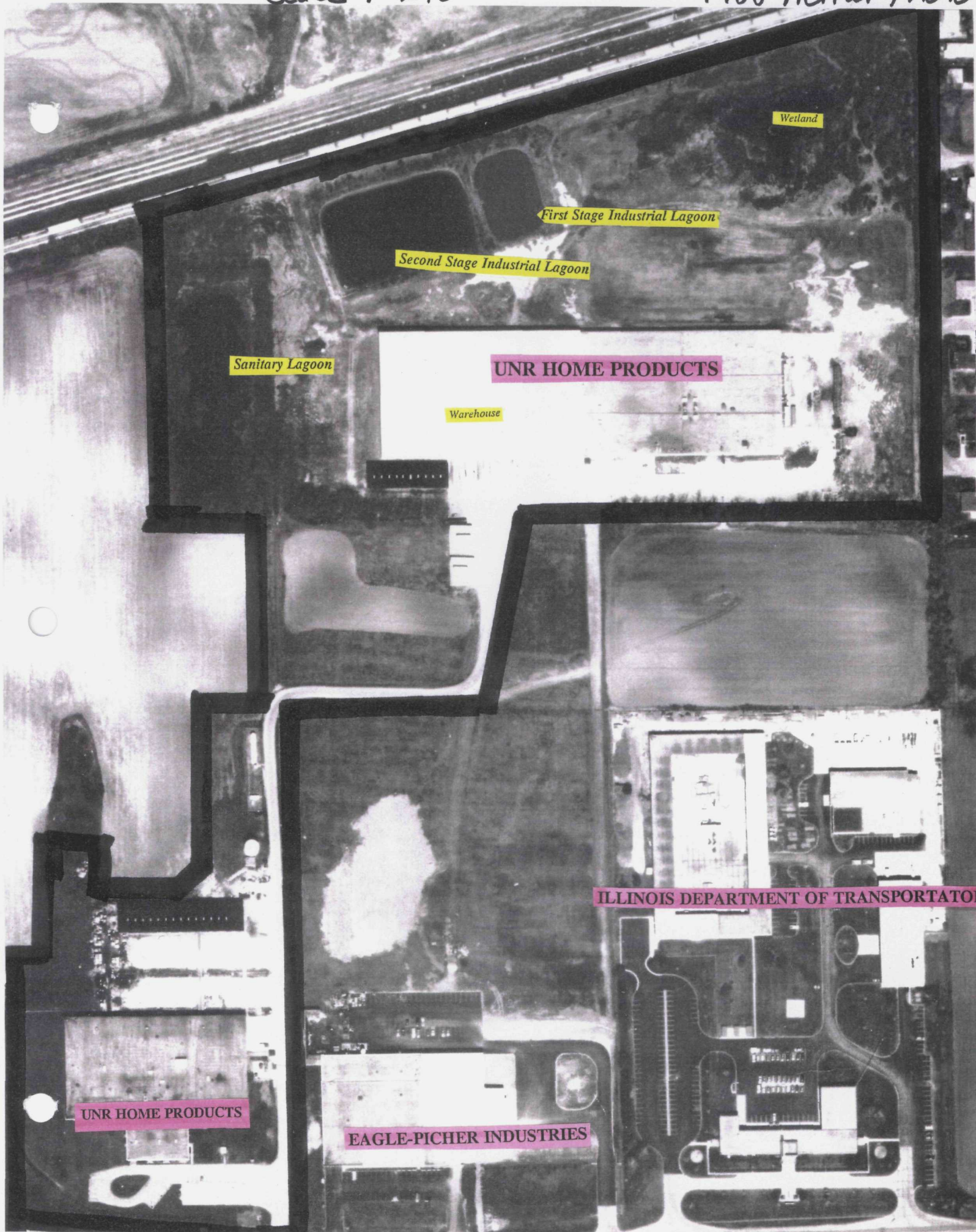
SECTION 3



1957 AERIAL PHOTOGRAPH
1:273

Scale 1:240

1988 Aerial Photo



Wetland

First Stage Industrial Lagoon

Second Stage Industrial Lagoon

Sanitary Lagoon

UNR HOME PRODUCTS

Warehouse

ILLINOIS DEPARTMENT OF TRANSPORTATION

UNR HOME PRODUCTS

EAGLE-PICHER INDUSTRIES

SECTION 4

LIST OF REFERENCES

1. "Interim Environmental Survey" - Goodwin & Broms, Inc. 1990.
2. Lagoon Discoloration - June 1982.
3. Lagoon Discharge - December 1982.
4. Lagoon Discoloration - August 1985.
5. Lagoon Discharge - Agency reply to August 1985 discharge.
6. Reply to complaint investigation - September 23, 1985.
7. "Environmental Survey of UNR Industrial Site - Preliminary Report - November 6, 1989."
8. Supplemental Report prepared by Memphis Environmental Center for UNR - September 11, 1990.
9. Agency documentation inviting UNR to participate in Pre-Notice Site Cleanup Program.
10. Closeout of UNR's lagoons.

L0430305012-EDGAR
PARIS/UNR HOME PRODUCT

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ENCLOSURE MEMO

Date: March 29, 1990
From: Mark S. Mattingly
To: Jack Wursta
Re: Bootz Manufacturing Company

____ Please file and return file-marked copy to us.

X We enclose the following: Interim Environmental Survey by
Goodwin & Broms, Inc. Consulting Environmental Engineers

____ For your information.

____ Please review and call _____ in our offices.

____ Please have your signature acknowledged before a Notary.

**Reference
Number 1**

At the request of Bootz, two additional tasks were performed which were not included in the March 1 scope of work:

- . A "quick and dirty" inspection of the North Plant manufacturing area for presence of asbestos-containing materials was performed, resulting in collection of three samples.
- . A sample of sludge was taken from the sludge pit located between the east end of the pickling tank area and the Cleaver-Brooks boiler in the North Plant manufacturing building.

3.3 March 20, 1990 Visit.

GBI personnel returned to the UNR property on March 20, 1990 to complete certain tasks not completed during the March 6-8 visit. These tasks consisted of:

- . Sampling of sanitary lagoon sediment near its inlet.
- . Sampling of water in the slough for oil and grease.

. Completion of location measurements for all soil borings and measurements of elevation for key locations of interest on the northeast tract.

. Examination of equipment in both the North Plant and the South Plant for air pollution control permit application purposes.

4.0 RESULTS OF INVESTIGATIONS TO DATE

Significant observations and sample results are summarized in this section. In general, only those findings which are thought to have relevance for the contemplated real estate transaction are discussed in this report. Information which pertains to environmental permit application requirements or other concerns, but which does not bear directly on the proposed transfer of ownership of the property, is not presented here. Location of sampling points is shown in Exhibit 4.1.

4.1 Industrial Lagoon Closure.

The presence of the industrial lagoon is a significant encumbrance on the UNR property. This lagoon is not designed to current standards, in that it does not have an impermeable liner to prevent exfiltration of contaminated water through the walls or bottom. Without question, provisions will be needed to accomplish closure of the industrial lagoon and restoration of that area of the property to a safe condition.

The water in the first stage of the lagoon is somewhat elevated in pH value (alkaline) and total dissolved solids, relative to Illinois general use water quality standards (Exhibits 4.2 and 4.3). One of the two samples also exceeded the

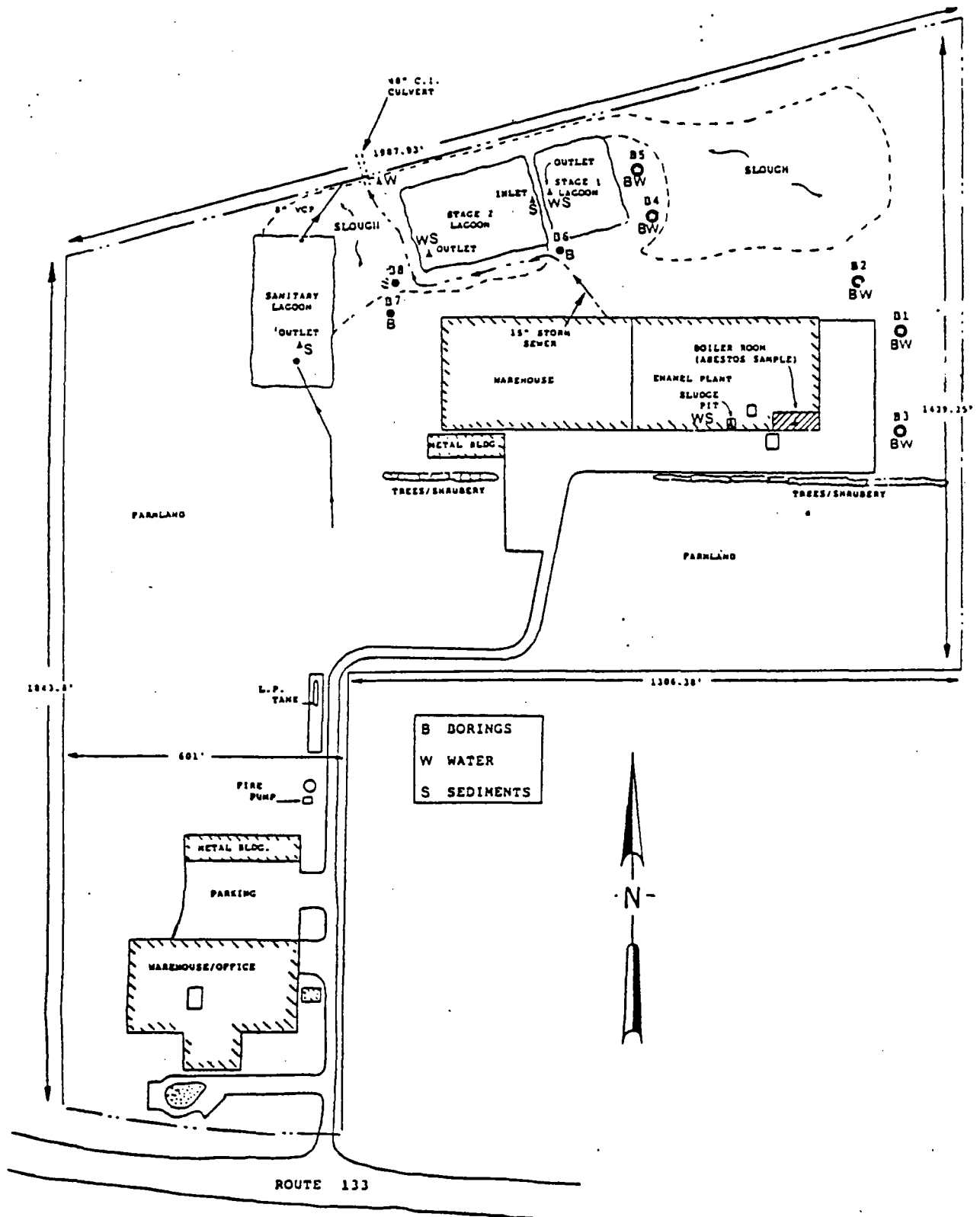


EXHIBIT 4.1

EXHIBIT 4.2

Sample Type Location Parameters	1st Stage Lagoon			2nd Stage Lagoon			2nd Stage Lagoon*		
	Sediment Inlet	Liquid Outlet	Sediment Inlet	Liquid Outlet	Sediment Inlet	Liquid Outlet	Liquid Inlet	Sediment Inlet	Liquid Inlet
pH	8.3	9.9				5.6			
Total Metals (ppm)									
Lead	36.9	<0.5			6.1	9.0	BDL		<0.080
Iron	45,890	1.2			21,250	20,000	12.8		15.7
Chromium	17.9	<0.5			3.3	3.4	BDL		0.079
Barium	218.0	<0.5			37.3	41.3	BDL		0.296
Cadmium	37.1	<0.5			<0.5	<0.5	BDL		0.065
Nickel	444.0	<0.5			14.2	15.3	2.3		3.49
Silver	<0.5	<0.5			<0.5	<0.5	BDL		<0.001
Mercury									0.167
Zinc									
EP Toxicity Extraction (ppm)									
Lead	BDL		<0.1		<0.5	BDL		<0.1	
Chromium	BDL		<0.06		<0.5	BDL		<0.06	
Barium	0.8		<0.2		<0.5	BDL		<0.2	
Cadmium	BDL		0.08		<0.5	BDL		<0.02	
Nickel	5.2		2.4		0.5	BDL		0.4	
Silver	BDL		<0.002		<0.5	BDL		<0.002	
Mercury			.25					<0.08	
Zinc									
Total Dissolved Solids (ppm)		1,310					2,340		2,460
Volatile Organic Compounds	No								
Semi-Volatiles	No								

*Sampling & Analysis October, 1984

EXHIBIT 4.3

SELECTED ILLINOIS GENERAL USE WATER QUALITY STANDARDS
(35 Ill. Adm. Code 302.208)

<u>Constituent</u>	<u>Standard, MG/L</u>
Barium	5.0
Cadmium	0.05
Chromium	1.05
Iron	1.0
Lead	0.1
Mercury	0.0005
Nickel	1.0
Zinc	1.0
Total Dissolved Solids	1,000

standard for iron. If the pH is adjusted downward to the range of 6.0 to 9.0, nowever, the water would be acceptable for discharge to the city sanitary sewer.

The water in the second stage of the industrial lagoon is fairly acidic, with a pH value of about 3.6. The October sample was slightly above the water quality standard for cadmium and considerably above the standards for iron and nickel, as well as dissolved solids. It is likely that treatment of this wastewater to raise the pH to 6.0 or greater would result in a decrease in the metals concentrations, such that the resulting liquid could be discharged to the city sanitary sewer after settling of precipitated metals.

According to Dale E. Francis, consulting engineer for the City of Paris, the city wastewater treatment system could accept up to 100,000 gallons per day of water from the lagoons during dry weather; considerably less during wet weather. The volume of water in the two stages of the industrial lagoon combined is estimated to be about 2,000,000 gallons; thus, the time required to empty the lagoons to the city sewer would likely be on the order of 30 days.

A more difficult problem with closure of the industrial lagoon may be management of the contaminated sediments. Sample results show presence of relatively high concentrations of barium, cadmium, chromium, iron, lead, and nickel in the first stage sediment, and the second stage sediment is also high in all

of these heavy metals except cadmium. Extraction procedure (EP) toxicity values are low for these metals, though, indicating that the metals are present in a relatively immobile, insoluble form and will not be likely to migrate into the groundwater to any great degree. Nevertheless, the mere presence of these metals in the concentrations found would probably be a cause for concern on the part of the environmental regulatory agencies if it came to their attention.

While no formal approval is required for the lagoon closure procedure per se, a permit from the Illinois Environmental Protection Agency (IEPA) would be required prior to introduction of the water to the sanitary sewer; thus, IEPA's involvement in the lagoon closure is probably inevitable. Since the heavy metals, barium, cadmium, chromium, lead, and nickel, are "hazardous substances" under both federal and state laws, both the U.S. Environmental Protection Agency and IEPA have broad authority to require remedial measures when the presence of those metals poses an environmental threat. It would be prudent to assume that IEPA will scrutinize the management of the lagoon sediments carefully and may require measures other than simple burial on-site.

4.2 Sanitary Lagoon Closure.

Even though the sanitary lagoon was supposedly used only for sanitary waste, sediment samples contained relatively large concentrations of the same

heavy metals as were found in the industrial lagoon sediments (Exhibit 4.4). No explanation of how these metals reached the sanitary lagoon has been found, but the same concerns are raised by these sample data as for the industrial lagoon sediments.

No water sample was taken from the sanitary lagoon; however, the pH values of the sediment samples (6.9 and 7.2) should approximate the water pH value. Further sampling will be necessary to determine if the sanitary lagoon water can be pumped to the city sewer. The estimated volume of water in the sanitary lagoon is 1.5-2.0 million gallons.

4.3 Contaminated Soils.

Soil samples were taken at Borings B-1, B-2, B-3, B-4, B-5, and B-6, all using a split-spoon sampling device. The samples were taken from a depth of about 6 inches to about 30 inches, but due to the incoherent properties of some of the soil material, much of the sample was lost as the sampling device was withdrawn from the borehole, and therefore there was considerable vertical mixing of some of the samples. Nevertheless, the samples are regarded as representative of the top two feet of soil.

Analyses of these samples were performed for three classes of contaminants (Exhibit 4.5):

- . Eight heavy metals.
- . Volatile organic compounds (VOC's).
- . Semi-volatile organic compounds (SVOC's)

Each of the six soil samples exhibited elevated concentrations of at least some of the heavy metals. Four of the six soil samples showed presence of toluene; three showed chloroform; and one showed methylene chloride. These VOC's are present in very small concentrations. No SVOC's were found.

The presence of the heavy metals was not unexpected, because the location of the sampling points was based in large part on visual evidence that the surficial soil material was not of natural origin. It is believed that, in fact, the surface soil in the areas sampled is comprised at least in part of waste from the porcelain enameling process. Visual observations indicate that a large fraction of the portion of the northeast tract lying east and north of the manufacturing building is covered with this material. It may be that, due to the marshy character of this portion of the property, the waste was used as fill material over a period of many years.

Groundwater samples taken from five of the same borings were all below laboratory detection limits for the metals tested. This suggests that the metals are present in the soil in an insoluble, immobile form. One groundwater sample (B-2) was reported to have a trace of toluene present.

It is impossible to say with certainty how large a problem the presence of the heavy metals in the soil may be. While there is no apparent environmental - wetlands threat of an imminent nature, the presence of the toxic heavy metals in surface soil over such a large area will almost certainly be cause for concern by the environmental regulatory authorities. Apart from the possibility of groundwater contamination, the risk of human exposure by inhalation of windblown particles and the potential for offsite migration by vehicle or pedestrian trackout will likely receive scrutiny.

Upon inquiry to IEPA regarding their approach to determining acceptable levels of residual heavy metals in soils at hazardous waste clean-up sites, it was learned by GBI that the basic criterion used is that leachate from a soil sample subjected to an acidic extraction procedure (EP) should contain in heavy metals concentrations which are less than the values which have been proposed as Class II groundwater quality standards in a rulemaking proceeding currently pending before the Illinois Pollution Control Board (R89-14). While EP tests were not performed on the soil samples, the groundwater sample results discussed above

suggest that the metal-bearing soils might well prove acceptable using this basic criterion. Further analyses will be required to reach any definite conclusion on this point.

With regard to the VOC's detected in the soil samples, the concentrations involved are so small that the measured values could be the result of inadvertent contamination of samples in the laboratory during analysis--a common hazard encountered with measurement of VOC's in the low parts per billion range. Confirming analyses should be obtained before any important conclusions are reached using the data reported here. There was no known regular use by UNR of any of the three solvents detected in the VOC analyses, and therefore it seems unlikely that large quantities would be present in the soil or groundwater.

In addition to the soil contamination discussed above, another soil contamination problem was discovered. According to anecdotal information obtained by Bootz, a large amount of sludge from a grease trap which serves the sanitary sewer connection between the South Plant and the city sewer was removed and deposited in the area between the northwest corner of the North Plant warehouse and the slough. This sludge is believed to have consisted of animal fat-based drawing compound used in the forming of stainless steel sinks, along with grinding and polishing residue. The soil in the area in question was sampled (Boring B-7), but the sample is being held by GBI for further instructions

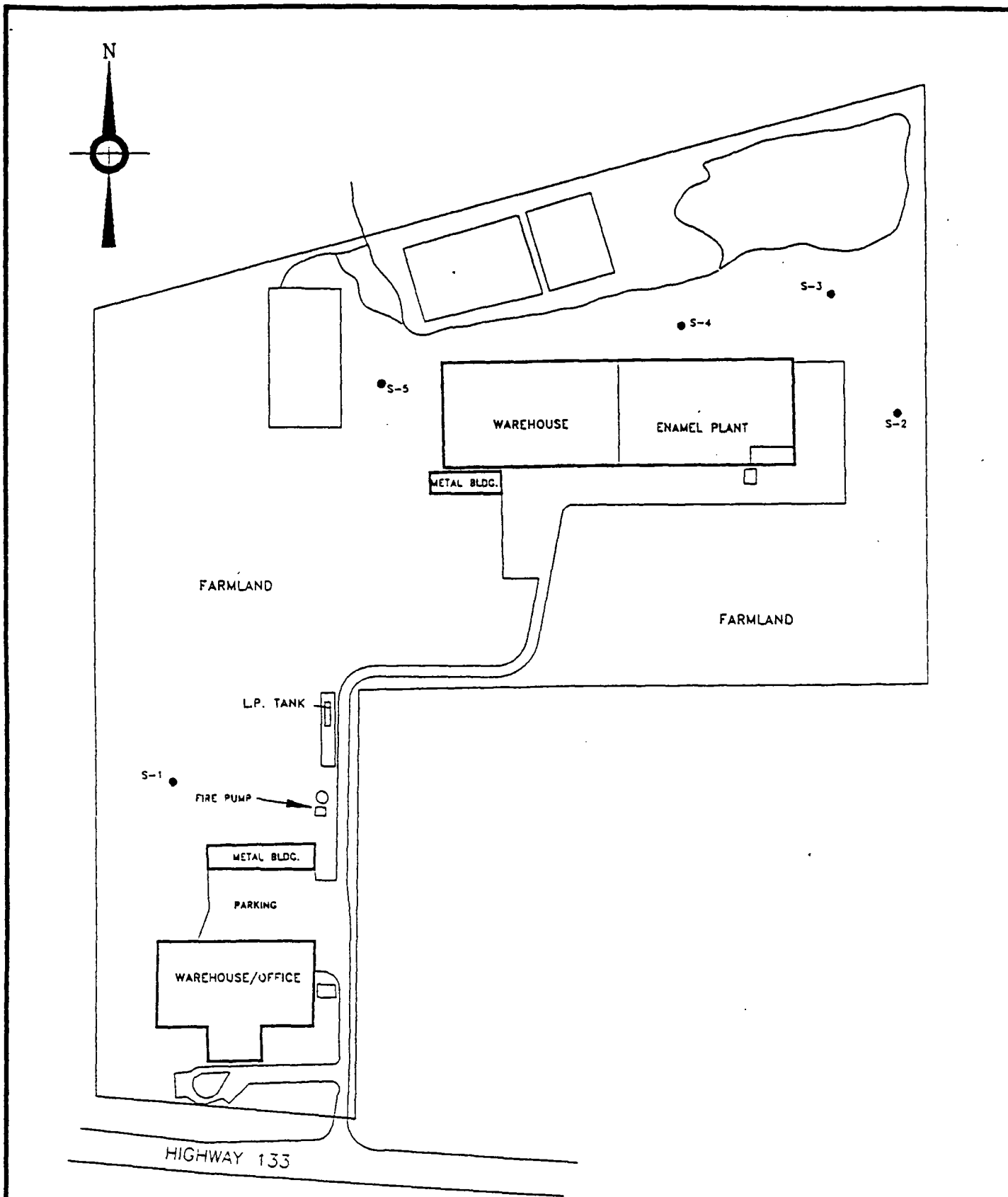


FIGURE 1

Not to scale

MEMPHIS ENVIRONMENTAL CENTER, INC.

DWG. NO. UNR0001

DRAWN: A.E.H.

DATE: APR 10, 1990

2803 Corporate Avenue, Suite 100
Memphis, Tennessee 38132



SURFACE SOIL SAMPLE LOCATION DIAGRAM
UNR INDUSTRIES INC.
PARIS, ILLINOIS

IBIT 4.5

SAMPLING LOCATION SAMPLE TYPE	B-1		B-2		B-3		B-4		B-5		E-1 Soil
	Soil Boring	Groundwater	Soil Boring	Groundwater	Soil Boring	Groundwater	Soil Boring	Groundwater	Soil Boring	Groundwater	
PARAMETERS											
pH	9.0	8.1	8.7	7.7	8.6	8.0	8.2	7.7	9.1	7.5	8.1
TOTAL METALS (ppm)											
Lead	29.2	BDL	22.3	BDL	15.0	BDL	13.1	BDL	10.6	BDL	40.
Chromium	10.3	BDL	17.9	BDL	7.2	BDL	5.9	BDL	5.7	BDL	10.
Barium	174.0	BDL	149.0	BDL	90.8	BDL	67.4	BDL	49.1	BDL	620
Cadmium	26.3	BDL	5.7	BDL	0.7	BDL	BDL	BDL	BDL	BDL	15.
Nickel	491.0	BDL	78.6	BDL	15.4	BDL	4.6	BDL	13.5	BDL	142.1
Silver	0.7	BDL	<0.5	BDL	<0.5	BDL	<0.5	BDL	<0.5	BDL	<0.
SEMIVOLATILES											
	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
VOLATILES (ppb)											
Methylene chloride	ND	ND	13	ND	ND	ND	ND	ND	ND	ND	10
Toluene	ND	ND	5	8	9	ND	6	ND	ND	ND	35
Chloroform	ND	ND	ND	ND	12	ND	11	ND	ND	ND	12

ND = Not Detected

BDL = Below Detection Limits

EXHIBIT 4.4

SAMPLE TYPE LOCATION	SANITARY LAGOON		SLOUGH		SLUDGE PIT/ADJACENT TO PICKLING*		
	SEDIMENT		SEDIMENT SW of 2nd STAGE	WATER LAGOON	SLUDGE BOTTOM	LIQUID SUMP	
	INLET	OUTLET					
PARAMETERS							
PH		6.9	5.8	-	9.8	-	
TOTAL METALS (ppm)							
Lead	88.8	15.1	20.1	-	23.2	<0.080	
Iron	4,079	44,560	41.5	-	-	4.05	
Chromium	205.0	12.2	126.0	-	14.4	0.092	
Barium	58.4	429	11.1	-	429.0	0.188	
Cadmium	7.8	<0.5	87.1	-	141.0	0.039	
Nickel	56.0	13.7	0.5	-	1471.0	0.593	
Silver	1.7	2.6	-	-	4.0	-	
Mercury	<1.0	-	-	-	-	0.001	
Zinc	-	-	-	-	-	0.135	
EP TOXICITY EXTRACTION (ppm)							
Lead	-	BDL	-	-	BDL	-	
Chromium	-	BDL	-	-	BDL	-	
Barium	-	BDL	-	-	0.9	-	
Cadmium	-	BDL	-	-	BDL	-	
Nickel	-	BDL	-	-	4.1	-	
Silver	-	BDL	-	-	BDL	-	
OIL & GREASES	-	-	-	14.2	-	-	
SEMIVOLATILES	-	-	ND	-	-	-	
VOLATILES	-	-	-	-	-	-	
TDS	-	-	-	-	-	1,170	

*Sampling & Analysis October, 1984

from Bontz regarding laboratory analysis. A definite, unpleasant odor was noted when the sample was taken, but the addition of sand to the waste fill area has rendered it aesthetically acceptable otherwise. A very noticeable sheen on the water surface in many portions of the slough suggests that the fat is being carried into the slough by surface runoff or leaching, however, and this is probably not a situation IEPA would consider acceptable. A surface water sample taken from the slough near the railroad culvert contained 14.2 mg/l of oil and grease. The natural condition for this watercourse would be near zero. Some type of remedial measure will likely be required.

4.4 Contamination of the Slough.

The slough which traverses the northeast tract from east to west, and which lies along the northwest edge of the northeast tract, is the main drainage pathway for the UNR property. The slough passes through a culvert under the Conrail tracks onto farmland lying north of the tracks. An underground field tile drains the slough into an underground storm sewer extending eastward along the south side of Springfield Avenue. This storm sewer eventually empties into an open ditch which drains into Twin Lakes, the City of Paris water supply.

While it is not at all clear whether the slough is "waters of the United States" or a federally-regulated wetland, the connection to Twin Lakes will

probably cause IEPA to consider it "waters of the State," and therefore subject to full regulatory protection. If this is the case, a serious problem exists, because the slough is heavily and noticeably contaminated by unnatural iron oxide bottom deposits, heavy metals in the sediments, and a thin floating layer of oil and grease (Exhibit 4.4). The area affected extends offsite to the north side of the railroad tracks. Clean-up, if it is required, will not be easy because of difficult access to the affected areas.

4.5 Sludge Pit in North Plant Manufacturing Building.

The sludge pit located in the North Plant manufacturing building between the pickling tanks and the Cleaver-Brooks boiler contains an estimated 2-3 cubic yards of sludge. This sludge is very high in nickel content, and also contains relatively large concentrations of barium, cadmium, chromium, lead, and silver (Exhibit 4.4). Removal of this sludge will require use of proper protective clothing for employees, and disposal must be in accordance with Illinois special waste regulations. (Note: Reclamation of the metals from this sludge may be an attractive alternative to landfill disposal.)

6 Asbestos in North Plant Manufacturing Building.

The inspection for asbestos-containing materials was performed on a rather impromptu basis and, due to time constraints, was limited to only the manufacturing building of the North Plant. Three samples were taken from insulation surrounding piping and the Cleaver-Brooks boiler exhaust flue, and all three tested positive for asbestos (Exhibit 4.6). The insulation in all three instances was in bad condition and will require removal by a qualified asbestos removal contractor.

4.7 Other Observations.

The November 6, 1989 Preliminary Report discusses in some detail the problems associated with surplus chemicals and containers of waste left on the northeast tract by UNR. It was observed during the subsequent site visits that some, but not all, of these materials have been removed. To the extent that these remaining materials meet the regulatory definition of either "hazardous waste" or "special waste," disposal of these materials will become the responsibility of the buyer at the time of closing. Continued attention to this matter will be necessary if this unwanted liability is to be avoided.

Asbest Samples

Sample I.D.	Insulation from piping on south wall to tanks near filter	Insulation from around condensate piping	Insulation from around boiler flue
Asbestos Fibers	90%	90%	80%
Type	Amosite	Amosite	Amosite
Other Fibers Identified	None	None	None
Particulates	10% mineral wool	10% mineral wool	20% mineral wool
Description	gray fibrous material	gray fibrous material	gray fibrous material

In addition to the waste materials identified in the Preliminary Report,

3I noted that many small containers of chemicals remain in a laboratory room located in the southeast corner of the North Plant manufacturing building.

Disposal of these chemicals will require special arrangements.

A pole transformer is located outside the North Plant manufacturing building. Since it was not labeled as belonging to Central Illinois Public Service Company, it probably belongs to UNR Industries. Ownership of this transformer should be determined, and it should be tested for presence of polychlorinated biphenyls (PCB's), if documentation that PCB's are not present cannot be provided by the owner.

Walkthrough surveys of the remaining portions of the UNR property revealed no other matters of concern except as noted in this report or in the Preliminary Report.

APPENDIX A

"SCOPE OF WORK" STATEMENT

FROM

GOODWIN & BROMS, INC. PROPOSAL TO

BOOTZ MANUFACTURING CO.

MARCH 1, 1990



subject file

GOODWIN & BROMS, INC

CONSULTING ENVIRONMENTAL ENGINEERS

631 EAST ALLEN STREET
SPRINGFIELD, ILLINOIS 62703

TELEPHONE (217) 522-203
FAX (217) 522-204

March 1, 1990

Mr. Tom Bootz
Bootz Manufacturing Company
P.O. Box 6409
Evansville, IN 47712-0409

Dear Mr. Bootz:

We are pleased to submit the following revised proposal for performance of a site environmental investigation in connection with your company's contemplated purchase of industrial property located at the west edge of Paris, Illinois from UNR Industries, Inc. The modifications of our February 28 proposal discussed by phone today are incorporated, along with other changes to laboratory cost calculations. Please note that this proposal has been prepared with less knowledge of specific conditions at the site than we typically have and, therefore, it may be necessary to make adjustments based on field observations as the work is performed. We have, however, taken a "worst-case" approach to the cost estimate, so I believe it is rather unlikely we would have to exceed the maximum charge limit proposed here.

PROPOSAL

SCOPE OF WORK

Goodwin & Broms, Inc. ("Consultant") will perform the following tasks, and will provide a preliminary report of the results to you or your designee no later than 30 days after receipt of authorization to proceed, weather permitting. (The required field work cannot be performed properly with snow cover or in heavy rain.)

Task 1: Site reconnaissance. A visit will be made to the site to plan the exact locations for soil sampling and to determine suitable methods for sampling the lagoons. The property will be walked to verify that all potential problems with the site needing sampling or other investigation have been identified and properly considered in this work plan. Contact will be made with Jimmie Neal and other local residents who may have important information about the site. Field measurements will be made of the pH of the water in each lagoon. An estimate

will be made of water volume in each lagoon and time required to dewater the lagoons to the city sewer.

Task 2: Soil sampling. Soil borings will be performed at the approximate locations shown on Attachment 1. These borings will be advanced to a depth of approximately two feet below the water table. Split-spoon soil samples will be taken at a depth of six inches to 36 inches, and the samples will be analyzed for pH, eight heavy metals, volatile organic compounds, and semi-volatile organic compounds. Piezometers will be installed in each boring, and groundwater samples will be taken and analyzed for pH, eight heavy metals, volatile organic compounds, and semi-volatile organic compounds. Two sediment or soil samples will be taken from the abandoned sanitary lagoon. Locations of sampling points will be determined in the field, but will be selected to be near the inlet and outlet if possible. Depth of sampling will be field determined, and will likely be about six inches. A hand auger will be used. Samples will be analyzed for pH and eight heavy metals.

Task 3: Sample industrial two-stage lagoon. Liquid samples will be taken from each of the two stages of the industrial lagoon. These will be analyzed for pH, total dissolved solids, and eight heavy metals. Bottom sediment samples will be collected from near the middle of each of the two stages, using a john boat and a thin-walled tube sampling device. (If field pH tests indicate a pH value of less than 4.0, some other means of access to the middle of the lagoon will be necessary for safety reasons.) Sediment samples will be analyzed for pH, eight heavy metals (total), and EP toxicity for metals.

Task 4: Prepare written report. Four copies of a written report of the investigation and its findings will be prepared and submitted within 30 days of receipt of authorization to proceed.

Task 5: Site safety and occupational health supervision. A site safety plan will be prepared in accordance with applicable OSHA regulations. All personnel involved in on-site activities will be briefed on site safety and health requirements and will be required to observe the precautions outlined in the site safety plan or stipulated by the GBI project manager, who will serve as site safety officer. All workers who may be exposed to hazardous substances will be required to have completed the 40-hour training course required by OSHA.



Reference
Number 2

June 30, 1982

Mr. Gary W. Goodman, Manager
Manufacturing Engineering
U N R Home Products
P. O. Box 429
Paris, IL 61944

RECEIVED

JUL 2 1982

Dear Gary:

On June 29, 1982, we received from you a sample of lagoon sludge and a sample of lagoon liquid. It was requested that we evaluate the samples in an effort to determine the cause of lagoon discoloration. As requested, this project was conducted on a priority basis, and this letter will summarize our findings as relayed to you by telephone on June 30, 1982.

The sludge sample was analyzed with the following results:

pH, std. units	3.0
Total Iron, mg/kg	174,000

The liquid sample analytical results are as follows:

pH, std. units	2.4
Total Iron, mg/l	510
Total Dissolved Iron, mg/l	470
Dissolved Iron II, mg/l	0.5
Dissolved Iron III, mg/l	469.5

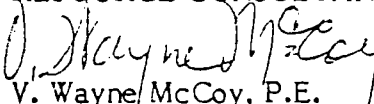
From the above, it is concluded that the liquid had 40 mg/l of suspended iron and 470 mg/l of dissolved iron, most of which was in the ferric state. The filtered sample had a medium straw color. A synthetic sample, prepared using deionized water adjusted to pH 2.4 to which 470 mg/l Iron III in the form of ferric sulfate was added, had an identical straw color.

Our study has concluded that the discoloration is due to ferric iron and should cause no adverse hazardous waste consequences. The total fee for this effort will be \$365.00 and will be invoiced at a later date.

We appreciate your continuing confidence and look forward to being of further service to UNR. If you have any questions regarding this report, please advise.

Very truly yours,

RESOURCE CONSULTANTS, INC.


V. Wayne McCoy, P.E.
Principal

VWM/jd

December 17, 1982

UNR Home Products
A UNR Company

Division of UNR, Inc
P.O. Box 429
Paris, Illinois 61944
Phone: 217-465-5361

Illinois Environmental Protection Agency
Division of Water Pollution Control
2125 South First Street
Champaign, Illinois 61820

Attention: Mr. K. Baumann



Dear Mr. Baumann:

Mr. John Applegate requested that I send this report directly to you. It has to do with an "orange" colored substance observed by your Mr. Bruce Girkin on our plant site. Mr. Girkin also turned in a sample he took from the site on 12-15-82.

We knew nothing of that incident until Mr. Applegate called us from Champaign yesterday (12/16/82) morning. Consequently I was able to talk only in generalities with Mr. Applegate yesterday.

CAUSE

A standpipe in the 1st stage lagoon became partially obstructed due to a buildup of sediment. This would not allow the gallons per hour being pumped into the lagoon to be received at the pumping rate. Consequently a cleanout manhole ahead of the lagoon backed up and overflowed.

CORRECTION

The sediment around the standpipe was leveled and allowed to settle across the bottom of the lagoon.

FUTURE PREVENTION

The amount of buildup in the lagoon will be monitored more closely when the plant is running at full production.

And, as I told Mr. Applegate on the phone, when the sediment shallows the lagoon, a dredging process will be done, and a certified waste hauler will be used to remove the sediment.

CONTENT

A. The "orange" colored material viewed by your sample taker is ferric iron.

There is ferrous iron in solution that precipitates out as ferric iron over a period of time, naturally, sometimes accelerated by certain environmental conditions, such as the excessive rain we've recently had.

UNR Home Products
A UNR Company

Division of UNR, Inc.
P.O. Box 429
Paris, Illinois 61944
Phone: 217-465-5361

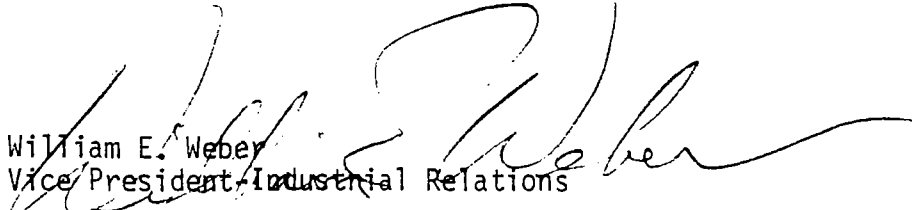


-2-

When we saw this condition before, tests were run by a laboratory, on a priority basis, to determine what was in it and if it presented a problem for us. That laboratory report is attached.

- B. The wastes generated by our process that go into the lagoon include solid iron particles, saponified oils, an alkaline cleaner, $\text{Fe}_2(\text{SO}_4)_3$, NiSO_4 , $\text{Na}_2\text{B}_4\text{O}_7$, NaCO_3 , Na_2SO_4 , and solid particles of porcelain frit.

Very truly yours,



William E. Weber
Vice President-Industrial Relations

WEW:ps

Attachment

cc: John Applegate

Reference Number 3

TELEPHONE MEMO

Field Operation Section - Region 4

Edgco Co.

For: files - UNARCO (UNR) Date: 12/16/82 Time: 9:00 am

From: Mr. William Weber

of UNARCO (UNR Home Products) Phone: (217) 465-5361

Called Return Call Will Call Back We Called X

Subject: Possible overflow from UNR lagoon

Summary of Conversation: I told Mr. Weber that on 12/15/82 Bruce G. obtained a sample of water outside of the UNR property between one of their lagoons & the RR tracks. The sample was orange colored with no apparent odor. B.G. indicated that there was an ~~orange~~ orange precipitate in the bottom of the R.R. ditch. Although B.G. was not able to tell for certain he thought that the UNR lagoon was overflowing. I asked Mr. Weber to look at the lagoon ~~action required~~: & get back to us this afternoon. He indicated that he would send one of his eng. staff out to look at the lagoon. He also said that the lagoon in question was abandoned & only received rain water. I told him that it was

Action Taken: still their responsibility since it was their lagoon.

Receiver initial
Action initial
ACTION DATE

Just

TELEPHONE MEMO

Field Operation Section - Region 4

For: UNARCO Files Date: 12/16/82 Time: 3:30pm

From: William Weber

of UNR Home Products Phone: 465-5361

Called X Return Call Will Call Back We Called

Subject: Lagoon discharge (overflow)

Summary of Conversation: He reported that the overflow had come from their 2-stage recirculation lagoon and that the level was now down so that it was no longer discharging. This lagoon recirculates water through their pickling process & picks up primarily iron. When pH ↑ an iron precipitate ↓. He indicated that iron was the primary contaminant. The lagoon overflowed due to the heavy rains recently, this also raised the pH of the
Action Required: water so that the iron would settle out.

Action Taken: JWA - I requested he send us a letter outlining what, when etc the incident happened & what they proposed to do to prevent future occurrences.

Receiver initial
Action initial
ACTION DATE

W

August 30, 1985

UNR Home Products
A UNR Company

Division of UNR, Inc.
P.O. Box 429
Paris, Illinois 61944
Phone: 217-465-5361

Mr. John Applegate
Illinois Environmental Protection Agency
Division of Water Pollution Control
2125 South First Street
Champaign, Illinois 61820



**Reference
Number 4**

Dear Mr. Applegate:

I tried to get to you yesterday P.M. and this morning. I thought I better drop a note in the mail so you don't think I forgot.

This confirms that the "red" / "orange" colored liquid at the rear of our plant, reported to you on 8-27 by someone unknown to us, is the same condition that existed in late '82 when the same thing happened after an excessive amount of rainfall. The substance is ferric iron or rust.

As I explained when I got back with you, I saw a small pool of stagnant red colored water immediately north of the RR tracks behind us. Looking beyond over the weed and corn fields there was no evidence of moving water, no rust colored vegetation, no dead vegetation.

I then spent a couple of hours tracking rivulets of water that lead into and form Boatman's Creek, thence to Sugar Creek, thence to the West Lake. Nowhere did we see red colored water. It was all clear and filled with frolicking minnows.

With respect to contamination, we are aware of no adverse findings in the samples taken by your Bruce Girkin in '82. In all of our samplings for EPA toxicity we have found ourselves to be below EPA limitations. We haven't done it ourselves before, but now I'm going to have several samples taken from points between ourselves and the West Lake. This to be on record as being okay.

Since '81 our cooker business has been on a steady decline with the plant running fewer months per year and putting out less product. Consequently, there has been corresponding decrease in effluent to the ponds. We infer this to be the reason for only a sporadic appearance of weather-accelerated percolation through the berm. There is no evidence of spill over or flooding.

- Continued -

TELEPHONE MEMO

Field Operation Section - Region 4

Edgar County
For: UNR Home Products Date: 4/16/85 Time: 4:30 pm
From: Mr. William Weber
of UNR Phone: (217) 465-5361

Called X Return Call Will Call Back We Called

Subject: Disposal of Sludge

Summary of Conversation: UNR has an agreement with Thomas
Landfill in Danville to accept his sump sludge (2x year)
Thomas had them sample the sludge + now wants UNR
to get Agency "Approval"

Action Required:

Action Taken: Just - I contacted DLPC - Dave Tansen
who said he would have B. Zierath contact Mr.
Weber concerning this

Receiver initial JW
Action initial
ACTION DATE

TELEPHONE MEMO

Field Operation Section - Region 4

Edgar Co - Paris

For: UNARCO Date: 8/27/85 Time: _____

From: Warren Brown, Water Operator
of City of Paris Phone: (217) 463-4025

Called X Return Call _____ Will Call Back _____ We Called _____

Subject: UNARCO - Paris, Lagoon discharge

Summary of Conversation: He became aware of a red-orange colored liquid in the creek below UNARCO & was concerned since the creek → water supply lake. I had him sample the material which showed the presence of iron and manganese. Warren believed the material came from the UNARCO lagoon. He also noted that the material was not actually reaching the lake, however a rain would push it down to the lake.

Action Required: IAT/I contacted William Weber of UNARCO who reported that the material in the lagoon would match the description of the material in the creek. He told me that this material would be high in iron but otherwise inert.

Action Taken: He went to the lagoon, made some observations and reported back. He said the material in the ditch was not flowing. He confirmed that the material was the same as in the lagoon. He will follow-up with a letter

Receiver initial _____
Action initial _____
ACTION DATE _____



September 10, 1985

RECEIVED
Field Operations Section

SEP 13 1985

Environmental Protection Agency
State of Illinois

EDGAR COUNTY - UNR Home Products (UNARCO), Paris
Complaint Investigation

**Reference
Number 5**

Mr. William E. Weber, Vice President
UNR Home Products
P.O. Box 429
Paris, IL 61944

Dear Mr. Weber:

We have reviewed your August 30, 1985 letter concerning the chronic problems with discharges from your lagoon system and found it does not adequately address the problems. Please be advised that these discharges are apparently in violation of the provisions of the Illinois Environmental Protection Act and the Water Pollution Rules and Regulations of the Illinois Pollution Control Board as set forth in Title 35: Illinois Administrative Code.

Please submit a response outlining actions taken or proposed to eliminate any discharges or seepage from the lagoon system and to prevent similar occurrences in the future. Include with this submittal a proposed schedule for implementing corrective measures. If you have any questions please contact Mr. J.W. Applegate.

Very truly yours,

ENVIRONMENTAL PROTECTION AGENCY

K. L. Baumann
Manager, Region 4
Division of Water Pollution Control

KLB:jmp

cc: Region 4
✓DWPC/FOS & RU

September 23, 1985

UNR Home Products
A UNR Company

Reference
Number 6
Division of UNR, Inc.
Chicago, Illinois 60644
Phone: 217-465-5361

Mr. John Applegate
Illinois Environmental Protection Agency
Division of Water Pollution Control
2125 South First Street
Champaign, IL 61820



RECEIVED

NOV 25 1985

Environmental Protection Agency
Division of Water Pollution Control
Permit Section
Springfield
State of Illinois

Dear Mr. Applegate:

RE: UNR Home Products
Complaint Investigation

This confirms actions taken by us as probably already reported to you by the Paris City Engineer (Dale Francis) as part of his follow-up directive from the Council. Apparently it was the Council which lodged the complaint with you on the basis of what they assumed to be a health hazard to the City. They did not contact us at all.

Region 4 did not accept our discussion (verbal and letter) with you as being an adequate reaction. Immediately upon receipt of Mr. Baumann's September 10 memo we launched an intensive investigation of the lagoon setup.

To provide additional walkways and observation areas we removed a considerable amount of densely grown weeds and hedgerow. In the process we uncovered an old concrete pit to the south of the west lagoon. Reference to an old detailed drawing of the lagoon disclosed this to be what the original owners called a storm ditch diversion chamber. And, it showed a concrete pipe running to the lagoon.

Our Plant Manager and Maintenance Superintendent got a boat and set out to locate the pipe. They found it, but, because of its depth below water level, they could not determine its condition or if its check (flap) valve was working properly. Therefore, we assumed that the several reddish wet spots at the base of the concrete chamber were the source of our problem.

Since there is no need or requirement for this diversion, we decided to seal the chamber off from the lagoon. The pipe was broken off at the wall of the berm. An appropriate area around the mouth of the pipe was Drott hoed and backfilled with some 86,000 pounds (43.15 tons) of clay compacted in place. The chamber, itself, was pumped out and filled to level with concrete. This sealed the chamber off both inside the lagoon and outside.

cont...

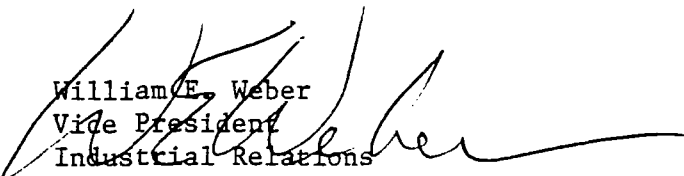
Mr. John Applegate
Illinois Environmental Protection Agency
Division of Water Pollution Control
Champaign, IL 61820

September 23, 1985
Page 2

This work was done from Thursday (9/12) through Saturday (9/14). Saturday was the day of final sealing. The area has been monitored daily since then. No wet spots with the telltale reddish hue have been noted. The monitoring will continue.

We feel that any apparent problem has been eliminated for now and the future. And, as we told you earlier, it is our planned intention to go to a powder coating system next year. At that time the ponds will be cleaned up and closed down in accord with EPA regulations.

Very truly yours,



William E. Weber
Vice President
Industrial Relations

WEW/nc

cc: Mr. K. L. Baumann

September 12, 1985

UNR Home Products
A UNR Company

Division of UNR, Inc.
P.O. Box 429
Paris, Illinois 61944
Phone: 217-465-5361

Mr. Dale De Clue
State of Illinois
Environmental Protection Agency
Division of Water Pollution Control
Permit Section
2200 Churchill Road
Springfield, Illinois 62706

3112-85

RECEIVED

Environmental Protection Agency
Springfield, Illinois

Dear Mr. De Clue:

Re: Permit No.: 1980-EB-1372
Log Numbers: 1372-80,4355-73
Issued: 11-26-80

As we did with our letter of September 17, 1980, this is to request renewal of the captioned permit.

The physical characteristics of the 2-stage lagoon are unchanged from the conditions upon which the Permit was granted.

The porcelainizing process, which generates the waste has not changed. However, this plant now only operates up to 5 months per year due to the seasonality of the product currently being made (barbeque cooker grills).

Should it have a bearing on the mechanics of issuing permits, you need to know that we have been operating under Chapter XI since July of 1982 and that, in March of 1985, the cooker business was offered for sale. However, up to now no serious buyers have materialized, and it is Corporate's intent that we continue to run this business ourselves.

Thank you.

Very truly yours,

William E. Weber
Vice President
Industrial Relations

WEW/nc

RECEIVED
Champaign

SEP 22 1985

Environmental Protection Agency
Springfield, Illinois



CONSULTING ENVIRONMENTAL ENGINEERS

631 EAST ALLEN STREET
SPRINGFIELD, ILLINOIS 62703

GOODWIN & BROME, INC.

TELEPHONE (217) 522-2036
FAX (217) 522-2042

**Reference
Number 7**

ENVIRONMENTAL SURVEY

of

UNR INDUSTRIES SITE

PARIS, ILLINOIS

PRELIMINARY REPORT

November 6, 1989

ENVIRONMENTAL SURVEY
OF
UNR INDUSTRIES SITE
PARIS, ILLINOIS

PRELIMINARY REPORT

1.0 INTRODUCTION

UNR Industries, Inc. (UNR) wishes to sell its currently idle manufacturing property located at the west edge of Paris, Illinois. In order to facilitate such a sale, the Paris Economic Development Corporation (PEDCO) has retained Goodwin & Broms, Inc., consulting environmental engineers based in Springfield, Illinois, to perform a survey of the UNR Industries site. This survey is intended to identify potential risks related to environmental regulations that might be associated with ownership of the real property or the equipment and materials present on the property.

This report presents certain initial findings of the investigation. It is being submitted only as a method of conveying information needed by UNR and PEDCO on an urgent basis, and should not be construed as representing a complete review of all pertinent aspects of the property with respect to potential environmental liabilities for prospective purchasers.

Nevertheless, as discussed further in Section 5.0 of this report, it is the opinion of Goodwin & Broms, Inc. that none of the issues described here, individually or collectively, should be

regarded as sufficient reason for an otherwise interested prospective buyer to reject purchase of the property.

This preliminary report is based on observations made by Daniel J. Goodwin, P.E. during an inspection of the site on October 9, 1989, as well as on information obtained from Francis Associates Consulting Engineers, who designed the wastewater lagoons, and on laboratory analyses performed by Valley Environmental Testing Corporation.

A final report reflecting completion of the survey will be prepared, following receipt of additional information from UNR and further evaluation of certain questions which have arisen during the initial investigation.

A Plat of Survey for the UNR Industries site is provided as Exhibit 1.1. This exhibit shows the general arrangement of the property, including buildings, waste lagoons, utilities, roadways, and property lines. None of the adjoining properties contains land uses deemed worthy of concern for the purposes of this survey.

2.0 POTENTIALLY HAZARDOUS CHEMICALS

During the October 9, 1989 inspection, it was noted that substantial quantities of potentially hazardous chemicals had

apparently been left at the plant by UNR at the time operations ceased. While much of this material is probably usable, it would likely be regarded as "abandoned," and would therefore be categorized as solid waste by federal and state environmental regulatory authorities. Judging by the labels found on containers and packaging, much of this solid waste would fall within the regulatory definition of "hazardous waste" (35 Ill. Adm. Code 721). This means that after 90 days, the facility became an unpermitted hazardous waste storage facility, and is subject to the requirements for carrying out formal closure in accordance with 35 Ill. Adm. Code 725, Subpart G.

A list of potentially hazardous chemicals observed to be present in the UNR plant is provided in Exhibit 2.1, along with an indication of the probable regulatory status of those materials if abandoned in the quantities observed. To the extent that UNR is able to salvage these materials and use them elsewhere or sell them, the materials would no longer be considered "waste." Only if no materials remain in the "hazardous waste" category would the requirement for formal closure be avoided.

The significance of designation of a material as "non-hazardous special waste" is discussed in Section 3.0.

EXHIBIT 2.1

POTENTIALLY HAZARDOUS CHEMICALS OBSERVED AT THE UNR INDUSTRIES SITE

<u>Material Description</u>	<u>Quantity</u>	<u>Regulatory Status if Abandoned</u>
Porenac alkaline cleaner	1 drum	Probably hazardous waste
Betz Entec 717	1 drum	Unknown
Betz Entec 721	1 drum	Unknown
Betz Entec 735	1 drum	Unknown
Betz Entec 741	2 drums	Unknown
Acetone	1-5 gal. cont.	Hazardous waste
Sulfuric acid 66°	4 drums	Hazardous waste
Caustic soda liquid, 50%	2 drums	Hazardous waste
Keystone 49 medium	1-30 gal. drum	Unknown
Nickel sulfate	12-5 gal. cont.	Non-hazardous special waste
Borax	4-40 lb bags	Non-hazardous special waste
Soda ash	7-50 lb bags	Hazardous waste
Ferric sulfate	1½ drums	Non-hazardous special waste
Madison Chemical Compound HT-54	2 drums	Unknown
Unidentified compressed gases	3 cylinders	Special waste, possibly hazardous

3.0 SOLID AND HAZARDOUS WASTE

In addition to the apparently salvageable chemicals described in Section 2.0, a sizable quantity of solid waste material was noted to be present in the building. By far the largest quantity of such material was located on the ground floor in the area ~~beneath the frit preparation equipment on the~~ mezzanine. A total of 56 drums of unidentified solid material was present. The nature of the material could not be ascertained, but the waste was probably ground coat residue from the porcelain operation. The waste would be considered special waste under Illinois regulations, and might be hazardous waste, depending on its particular chemical characteristics.

Even if the material is not classified as hazardous waste, its disposal is likely to cost several thousand dollars for laboratory analyses, transportation, and landfill fees. If the material is hazardous waste, the disposal costs might well reach the \$30,000 to \$50,000 range.

A drum of waste oil and two drums of unidentified material were observed in addition to the solid waste described above. The waste oil is probably recyclable and not worthy of any great concern. The two unidentified drums may or may not pose a

significant problem depending on the nature of the material and the difficulty encountered in properly characterizing it.

In the course of inspecting the grounds in the area between the large warehouse and the lagoons, an area of discolored, unvegetated soil was discovered. The surface of the ground was coated with a white, powdery residue, with an orangish-brown layer below. The area appeared to have been graded to form a small holding basin, as though disposal of a few hundred gallons of a liquid slurry were contemplated. The area involved is not large--perhaps 300 to 500 square feet. Unless an explanation of this is provided by UNR, further investigation, including soil sampling, will be needed to determine whether this constitutes a serious soil or groundwater contamination problem.

4.0 WASTEWATER LAGOONS

An obvious source of concern for any prospective buyer of the UNR property is the presence of a two-stage wastewater lagoon system used for pickling waste. This system was designed as a closed, recirculating system, with no deliberate discharge to the environment, but no particular attempt was made to seal the lagoon bottoms to prevent exfiltration into the surrounding native soil and groundwater. Thus, the possibility of a serious groundwater contamination problem has been considered.

As a first step in assessing the presence of such a problem, samples of liquid and bottom sediment were collected from each of the two stages of the lagoon system. The location of the sampling points was selected to represent locations where pollutant concentrations were likely to be high, if they are present at levels of concern anywhere in the system. These samples were analyzed for seven toxic heavy metals typically associated with pickling operations, as well as total dissolved solids (liquid samples only). Results of the sampling of the lagoons are summarized in Exhibit 4.1. Illinois General Use Water Quality Standards for surface waters are given in Exhibit 4.2 for comparison with sample results.

It can be seen by comparing the sample results in Exhibit 4.1 with the water quality standards in Exhibit 4.2 that the contents of the lagoon system are not suitable for direct discharge due to elevated concentrations of cadmium, iron, nickel, and total dissolved solids. It should be recognized, however, that these concentrations could be achieved readily in the municipal sewer system by dilution, if the lagoon system were to be dewatered by pumping slowly into the sanitary sewer presently serving the property. This, of course, would require prior approval by both the City of Paris and the Illinois Environmental Protection Agency, but there appears to be no technical reason this solution cannot be utilized.

EXHIBIT 4.1

RESULTS OF LAGOON LIQUID AND BOTTOM SEDIMENT ANALYSES

SAMPLE TYPE SAMPLING LOCATION	Liquid First Stage Overflow	Liquid Second Stage Outlet	Pickle & Rinse Tank Sump
TOTAL METAL CONCENTRATION, MG/L			
Barium	0.356	0.296	0.188
Cadmium	0.043	0.065	0.039
Chromium	0.085	0.079	0.092
Iron	0.118	15.7	4.05
Lead	<0.080	<0.080	<0.080
Mercury	<0.001	<0.001	<0.001
Nickel	0.146	3.49	0.593
Zinc	0.039	0.167	0.135
TOTAL DISSOLVED SOLIDS, MG/L	1,240	2,460	1,170

SAMPLE TYPE SAMPLING LOCATION	Sediment First Stage Inlet	Sediment First Stage Outlet	Sediment Second Stage Inlet
EP TOXICITY EXTRACTION (Leachate), MG/L			
Barium	<0.2	<0.2	<0.2
Cadmium	0.08	<0.02	<0.02
Chromium	<0.06	<0.06	<0.06
Lead	<0.1	<0.1	<0.1
Mercury	<0.002	<0.002	<0.002
Nickel	2.4	2.6	0.4
Zinc	0.24	0.22	0.08

EXHIBIT 4.2

SELECTED ILLINOIS GENERAL USE WATER QUALITY STANDARDS
(35 Ill. Adm. Code 302.208)

<u>Constituent</u>	<u>Standard, MG/L</u>
Barium	5.0
Cadmium	0.05
Chromium	1.05
Iron	1.0
Lead	0.1
Mercury	0.0005
Nickel	1.0
Zinc	1.0
Total Dissolved Solids	1,000

After removal of the liquid from the lagoons, they can simply be filled in with clean fill material. The metals content of the bottom sediment, while somewhat high in nickel, is not sufficient to warrant removal. There is no regulatory standard for nickel in soil.

A sample was also taken of water standing in the sump area below the pickle and rinse tanks inside the plant building. This sample is reported in Exhibit 4.1, as well. The laboratory analyses show this liquid to be high in iron and dissolved solids. Disposal to the city sewer would be a technically feasible method, but approval will be required from the City of Paris and the IEPA.

Copies of the laboratory reports for all samples are included in Appendix A.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the information obtained to date in this environmental survey of the UNR industries site, the following conclusions and recommendations are offered:

- 5.1 At the time of the inspection on October 9, hazardous chemicals were present in quantities and circumstances that would likely have been considered by federal and

state authorities to be a serious violation of hazardous waste regulations, requiring institution of formal closure procedures. UNR should remove all materials which could be considered hazardous waste for salvage or for proper disposal.

5.2 The presence of substantial quantities of regulated special waste which may be hazardous poses a significant cost liability for the prospective buyer. UNR should undertake removal and proper disposal of this material.

5.3 The liquid in the wastewater lagoon system and the pickling and rinse tank sumps is too high in heavy metals and dissolved solids for direct surface discharge, but arrangements for discharge to the municipal sewer system appear feasible, and should be pursued.

5.4 Information regarding the cause of the discolored, unvegetated area south of the lagoons should be sought from UNR employees familiar with the plant during its last few months of operation. If the nature of the substances cannot be determined in this fashion, soil samples should be taken for laboratory analysis and, if

appropriate, an evaluation of possible groundwater contamination undertaken.

5.5 None of the problems identified in this report are of sufficient magnitude that an interested prospective buyer should be deterred from continuing negotiations for purchase of the property. Worst-case clean-up costs are likely to be only a small fraction of the value of the property.

APPENDIX A

LABORATORY REPORTS



TEST RESULTS

REPORT TO: Goodwin & Broms
 631 East Allen Street
 Springfield, IL 62703
 ATTN: Daniel J. Goodwin
 cc: Dale Francis, Francis Associates

Chain of Custody #: 1978
 Date Sampled: 10/10/89
 Sample Description: Wastewater, Sediment

Date Received: 10/10/89
 Date Completed: 10/26/89

TEST DESCRIPTION	RESULTS	DETECTION		UNITS	METHOD	ANALYST	DATE
			LIMIT				

#89-511-01							
1st Stage Lagoon							
pH	1.3	N/A		@ 25 C	EPA 150.1	MS	10/10/89
TOTAL DISSOLVED SOLIDS	1,240	5.0		MG/L	EPA 160.2	SE	10/11/89
BARIUM	.356	.10		MG/L	EPA 208.1	KE	10/21/89
CADMIUM	.043	.01		MG/L	EPA 213.1	KE	10/16/89
CHROMIUM	.085	.03		MG/L	EPA 218.1	KE	10/16/89
IRON	.118	.040		MG/L	EPA 236.1	KE	10/16/89
LEAD	<.080	.08		MG/L	EPA 239.1	KE	10/16/89
MERCURY	<.001	.001		MG/L	EPA 245.1	NE	10/24/89
NICKEL	.146	.05		MG/L	EPA 249.1	KE	10/16/89
ZINC	.039	.01		MG/L	EPA 289.1	KE	10/16/89
#89-511-02							
2nd Stage Lagoon							
pH	1.4	N/A		@ 25 C	EPA 150.1	MS	10/10/89
TOTAL DISSOLVED SOLIDS	2,460	5.0		MG/L	EPA 160.2	SE	10/11/89
BARIUM	.296	.10		MG/L	EPA 208.1	KE	10/21/89
CADMIUM	.065	.01		MG/L	EPA 213.1	KE	10/16/89
CHROMIUM	.079	.03		MG/L	EPA 218.1	KE	10/16/89
IRON	15.7	.040		MG/L	EPA 236.1	KE	10/16/89
LEAD	<.080	.08		MG/L	EPA 239.1	KE	10/16/89
MERCURY	<.001	.001		MG/L	EPA 245.1	NE	10/24/89
NICKEL	3.49	.05		MG/L	EPA 249.1	KE	10/16/89
ZINC	.167	.01		MG/L	EPA 289.1	KE	10/16/89

APPROVED BY

Page 1 of 4

IF YOU HAVE ANY QUESTIONS ABOUT YOUR RESULTS, PLEASE CONTACT THE LABORATORY FOR CLARIFICATION.



TEST RESULTS

REPORT TO: Goodwin & Bross
 631 East Allen Street
 Springfield, IL 62703
 ATTN: Daniel J. Goodwin
 cc: Dale Francis, Francis Associates

Chain of Custody #: 1978
 Date Sampled: 10/10/89
 Sample Description: Wastewater, Sediment

Date Received: 10/10/89
 Date Completed: 10/26/89

TEST DESCRIPTION	RESULTS	DETECTION		UNITS	METHOD	ANALYST	DATE
		LIMIT					
#89-511-03							
Pickle Tank Sump							
pH	1.3	N/A		@ 25 C	EPA 150.1	MS	10/10/89
TOTAL DISSOLVED SOLIDS	1,170	5.0		MG/L	EPA 160.2	SE	10/11/89
BARIUM	.188	.10		MG/L	EPA 208.1	KE	10/21/89
CADMIUM	.039	.01		MG/L	EPA 213.1	KE	10/16/89
CHROMIUM	.092	.03		MG/L	EPA 218.1	KE	10/16/89
IRON	4.05	.040		MG/L	EPA 236.1	KE	10/16/89
LEAD	<.080	.08		MG/L	EPA 239.1	KE	10/16/89
MERCURY	<.001	.001		MG/L	EPA 245.1	NE	10/24/89
NICKEL	.593	.05		MG/L	EPA 249.1	KE	10/16/89
ZINC	.135	.01		MG/L	EPA 289.1	KE	10/16/89

1st Pond South Side Inlet

EPTox Extraction

BARIUM (Leachate)	<0.2	0.2		MG/L	SW 7080	NE	10/18/89
CADMIUM (Leachate)	0.08	0.02		MG/L	SW 7130	NE	10/18/89
CHROMIUM (Leachate)	<0.06	0.06		MG/L	SW 7190	NE	10/18/89
LEAD (Leachate)	<0.1	0.1		MG/L	SW 7420	NE	10/18/89
MERCURY (Leachate)	<0.002	0.002		MG/L	SW 7470	NE	10/23/89
NICKEL (Leachate)	2.4	0.10		MG/L	SW 7520	NE	10/18/89
ZINC (Leachate)	0.24	0.02		MG/L	SW 7950	NE	10/23/89

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Page 2 of 4

IF YOU HAVE ANY QUESTIONS ABOUT YOUR RESULTS, PLEASE CONTACT THE LABORATORY FOR CLARIFICATION.



TEST RESULTS

REPORT TO: Goodwin & Bros
 631 East Allen Street
 Springfield, IL 62703
 ATTN: Daniel J. Goodwin
 cc: Dale Francis, Francis Associates

Chain of Custody #: 1978
 Date Sampled: 10/10/89
 Sample Description: Wastewater, Sediment

Date Received: 10/10/89
 Date Completed: 10/26/89

TEST DESCRIPTION	RESULTS	DETECTION LIMIT	UNITS	METHOD	ANALYST	DATE
-----	-----	-----	-----	-----	-----	-----
1st Pond Outlet						
EPTox Extraction						
BARIUM (Leachate)	<0.2	0.2	MG/L	SW 7080	NE	10/18/89
CADMIUM (Leachate)	<0.02	0.02	MG/L	SW 7130	NE	10/18/89
CHROMIUM (Leachate)	<0.06	0.06	MG/L	SW 7190	NE	10/18/89
LEAD (Leachate)	<0.1	0.1	MG/L	SW 7420	NE	10/18/89
MERCURY (Leachate)	<0.002	0.002	MG/L	SW 7470	NE	10/23/89
NICKEL (Leachate)	2.6	0.10	MG/L	SW 7520	NE	10/18/89
ZINC (Leachate)	0.22	0.02	MG/L	SW 7950	NE	10/23/89
2nd Pond Inlet Struct.						
EPTox Extraction						
BARIUM (Leachate)	<0.2	0.2	MG/L	SW 7080	NE	10/18/89
CADMIUM (Leachate)	<0.02	0.02	MG/L	SW 7130	NE	10/18/89
CHROMIUM (Leachate)	<0.06	0.06	MG/L	SW 7190	NE	10/18/89
LEAD (Leachate)	<0.1	0.1	MG/L	SW 7420	NE	10/18/89
MERCURY (Leachate)	<0.002	0.002	MG/L	SW 7470	NE	10/23/89
NICKEL (Leachate)	0.4	0.10	MG/L	SW 7520	NE	10/18/89
ZINC (Leachate)	0.08	0.02	MG/L	SW 7950	NE	10/23/89

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Page 3 of 4

IF YOU HAVE ANY QUESTIONS ABOUT YOUR RESULTS, PLEASE CONTACT THE LABORATORY FOR CLARIFICATION.



TEST RESULTS

REPORT TO: Goodwin & Browns
631 East Allen Street
Springfield, IL 62703
ATTN: Daniel J. Goodwin
cc: Dale Francis, Francis Associates

Chain of Custody #: 1978 Date Received: 10/10/89
Date Sampled: 10/10/89 Date Completed: 10/26/89
Sample Description: Wastewater, Sediment

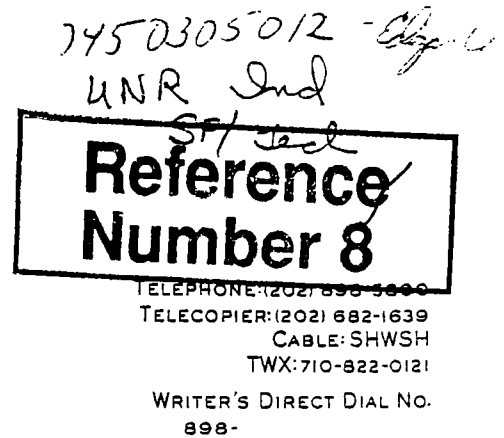
TEST DESCRIPTION	RESULTS	DETECTION LIMIT	UNITS	METHOD	ANALYST	DATE
2nd Pond West End						
EPTox Extraction						
BARIUM (Leachate)	<0.2	0.2	MG/L	SW 7060	NE	10/18/89
CADMIUM (Leachate)	<0.02	0.02	MG/L	SW 7130	NE	10/18/89
CHROMIUM (Leachate)	<0.06	0.06	MG/L	SW 7190	NE	10/18/89
LEAD (Leachate)	<0.1	0.1	MG/L	SW 7420	NE	10/18/89
MERCURY (Leachate)	<0.002	0.002	MG/L	SW 7470	NE	10/23/89
NICKEL (Leachate)	0.1	0.10	MG/L	SW 7520	NE	10/18/89
ZINC (Leachate)	0.03	0.02	MG/L	SW 7950	NE	10/23/89

APPROVED BY

Page 4 of 4

IF YOU HAVE ANY QUESTIONS ABOUT YOUR RESULTS, PLEASE CONTACT THE LABORATORY FOR CLARIFICATION.

SPRIGGS & HOLLINGSWORTH
ATTORNEYS AND COUNSELORS
1350 I STREET, N.W.
NINTH FLOOR
WASHINGTON, D. C. 20005-3305



DONALD W. FOWLER

September 25, 1990

BY FEDERAL EXPRESS

Mr. Brian Martin
Environmental Protection Specialist
Hazardous Substances Control
Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

Re: UNR Property in Paris, Illinois

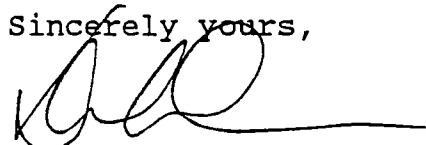
Dear Mr. Martin:

Following my letter to you of September 7, 1990, we received the results of certain additional sampling performed by the Memphis Environmental Center ("MEC") at UNR's property in Paris, Illinois. We enclose a copy of that report, which together with the earlier reports we provided represents all sampling data in UNR's possession concerning the site.

The supplemental report provides analytical results for certain soil samples that were not addressed in MEC's earlier report because of the phased analytical design of that investigation. The results are consistent with the conclusions set forth in our September 7 letter to you based on the earlier work.

As with the earlier data, we are of course available to answer any questions you may have concerning the supplemental report. Please feel free to call us.

Sincerely yours,



Donald W. Fowler
Counsel for UNR Industries, Inc.

DWF:sas
Enclosure

RECEIVED

SEP 26 1990

MEMPHIS ENVIRONMENTAL CENTER, INC.

2603 Corporate Avenue, Suite 100
Memphis, Tennessee 38132
Phone: (901) 345-1788 Fax: (901) 398-4719

September 11, 1990

Mr. Jack Wursta
UNR Industries, Inc.
332 S. Michigan Avenue
Chicago, Illinois 60604

Re: Phase II Site Investigation
UNR Industries, Inc.
Paris, Illinois
Supplemental Information - Phase II

Dear Mr. Wursta:

I write this letter to report the findings of the second set of supplemental data collected at the UNR Industries, Inc. facility in Paris, Illinois. Additional samples were collected on July 19, 1990 from four locations (S-2, S-3, S-4, S-5) presented on Figure 1. These locations were sampled during implementation of the original Work Plan to determine the concentrations of indicator parameters selected following a screening of Total Characteristic Leaching Procedures (TCLP) parameters. The design of the investigation provided for a phased analytical approach in which analysis of collected samples would be conducted only for those parameters for which an exceedence, by a factor of ten, of the analytical detection limits for the TCLP hazardous waste characteristic parameters was observed during the analysis of sediment samples collected from the two-stage industrial lagoon and the former sanitary lagoon. These sediments were known, through the work of others, to contain the greatest concentrations of substances which would lend themselves to additional investigatory analyses. In that no exceedence of detection limits by a factor of ten was observed for the TCLP parameters during the analysis of lagoon sediments, no analysis of the collected samples at the subsurface soil boring locations was conducted.

where is it?

Shortly after the submission of the Supplemental Information provided on July 17, 1990 by letter to you, it was decided to resample and analyze samples from these areas nonetheless in order to conclusively show that the surface and subsurface soils at the site would not be characterized as hazardous if removal of the soils was to be considered as part of a site cleanup during lagoon closure. Resampling was necessary as a consequence of TCLP extraction holding time exceedences. A complete laboratory analytical report is provided as an Appendix A. For ease of presentation, only those parameters for which an exceedence of the limit of quantitation was observed are tabulated below.

Soil Boring Locations
Interval (feet)

5' water

<u>S-2</u>			<u>S-3</u>		<u>S-4</u>		<u>S-5</u>
<u>0-1</u>	<u>5-6</u>		<u>0-1</u>	<u>4-5</u>	<u>0-1</u>	<u>4-5</u>	<u>0-1</u> <u>4.5-5.5</u>

Volatile Organic Compounds (ug/l)

Carbon Tetrachloride	NA	ND	ND	ND	ND	355	ND	ND
Tetrachloroethene	NA	66	45	ND	(ND)	ND	ND	50

() = Below Limit of Quantitation

Soil Boring Locations
Interval (feet)

<u>S-2</u>			<u>S-3</u>		<u>S-4</u>		<u>S-5</u>
<u>0-1</u>	<u>5-6</u>		<u>0-1</u>	<u>4-5</u>	<u>0-1</u>	<u>4-5</u>	<u>0-1</u> <u>4.5-5.5</u>

Base/Neutral Acid Extractable (ug/l)	ND	ND	ND	ND	ND	ND	ND	ND
Pesticides (ug/l)	ND	ND	ND	ND	ND	ND	ND	ND

Soil Boring Locations
Interval (feet)

<u>S-2</u>			<u>S-3</u>		<u>S-4</u>		<u>S-5</u>
<u>0-1</u>	<u>5-6</u>		<u>0-1</u>	<u>4-5</u>	<u>0-1</u>	<u>4-5</u>	<u>0-1</u> <u>4.5-5.5</u>

Metals (ug/l)

Arsenic	28	ND	ND	ND	ND	ND	ND	ND
Barium	5720	2510	2100	1050	710	651	1320	996
Cadmium	939	40	402	ND	65	ND	ND	ND
Selenium	8	7	18	6	ND	ND	ND	ND
Silver	30	22	26	13	10	10	15	13

As discussed and planned during the preparation for the second round of sample collection, the samples were collected as composite samples from a one foot interval at the surface and at the subsurface soil/ground water interface. The samples were collected following the excavation of test pits at each location. A description of each sampling location is presented below.

S-2

No vegetation was present at this location. A test pit excavation of six feet was performed; no visible delineation of any fill material from natural soils was evident. A yellow/grey clay soil was observed to six feet. Ground water was encountered at five feet beneath the surface.

S-3

No vegetation was present at this location. A test pit excavation of six feet was performed. Surface soils (0-12 inches) were observed to consist of a black imported soil, characteristic of frit material creating a distinct delineation from natural soils. A yellow/grey clay soil was observed from one to six feet beneath the surface. Ground water was encountered at four feet beneath the surface.

S-4

No vegetation was present at this location. A test pit excavation of six feet was performed. A red staining of surface soils was observed; however, no visible delineation of any fill material from natural soils was evident. A yellow/grey clay soil was observed to six feet beneath the surface. Ground water was encountered at four feet beneath the surface.

S-5

Sparse vegetation was observed at this location. A test pit excavation of six feet was performed. Imported fill material consisting of sand, metal cuttings, etc. was observed from the surface to a depth of 4 feet ten inches beneath the surface where a distinct delineation from natural soils was evident. A yellow/grey clay soil was observed from the bottom of the fill material to the remaining depth of six feet. Ground water was encountered at the delineation depth of fill to natural soils (4'10") beneath the surface.

A comparison of the laboratory analytical data with regulatory levels which become effective on September 25, 1990 reveals no exceedence of criteria which determine if waste material, including wastewaters and sludge in surface impoundments, is a hazardous waste due to toxicity. The "Toxicity Characteristic" rule, promulgated on March 29, 1990 by the Environmental Protection Agency (USEPA) added 25 new volatile organic compounds to for waste characterization under the Toxicity Characteristic Leaching Procedure (TCLP) which replaces the previous list of metal and organic compounds covered by the former test procedure, Extraction Procedure leach test.

Please contact me at your convenience if you should have any further questions regarding these data.

Sincerely,



Paul F. Galluzzi
Manager, Environmental Services

PFG/ns

MEMPHIS
ENVIRONMENTAL
CENTER, INC.

APPENDIX A

UNR - PARIS

SOIL SAMPLES - TCLP ANALYSES

LABORATORY REPORT R-900526

MEMPHIS ENVIRONMENTAL CENTER, INC. REQUEST FOR ANALYSIS

CLIENT NAME	<u>AMP Paris</u>	DATE SAMPLES SHIPPED	<u>7-15-90</u>
E/PROJECT #	<u>192020400</u>	DATE SAMPLES EXPECTED @ MEC	<u>7-20-90</u>
REFERENCE #		LABORATORY CONTACT	<u>P. Galluzzi</u>
T/PROJECT MGR	<u>P. Galluzzi</u>	SEND LAB REPORT TO:	<u>P. Galluzzi</u>
T/CONTACT			
T/PHONE #			
		DATE REPORT REQUIRED	<u>9/7/90</u>

le(s) #	Sample Type	Sample Volume	Requested Testing Method	Special Instructions
<u>Samples</u>				<u>TCLP -> BNA</u>
				<u>-> metals</u>
				<u>-> VOC</u>
				<u>-> Herbicides</u>
				<u>-> Pesticides</u>

TIME REQUIRED: NORMAL _____ RUSH _____ (rush order must be negotiated between the Lab Supervisor/Business Manager/Client)

HAZARDOUS IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)
 I _____ flammable _____ Skin Irritant _____ Highly Toxic _____ Other _____ (Please Specify)
 DISPOSAL (Please indicate disposition of samples following analysis. Lab will charge for packing, shipping and disposal)
 by client _____ Disposal by Lab _____

USE ONLY: Received by: _____ Date/Time: _____

APPENDIX A

UNR - PARIS

SOIL SAMPLES - TCLP ANALYSES

LABORATORY REPORT - R-900526

MEMPHIS ENVIRONMENTAL CENTER, INC.

ENVIRONMENTAL ANALYTICAL LABORATORY

2603 Corporate Avenue, East Suite 100
Memphis, Tennessee 38132
(901)-345-1788

Client Contact: Paul Galluzzi
Project: UNR - Paris
Sample(s) Type: Soil Samples

Report No: R-900526
Report Date: 09-11-90

Quality Assurance Summary:

<u>Type of Analysis</u>	<u>Method</u>	<u>Holding Time</u>	<u>Surrogate Recovery</u>	<u>Matrix Spike Recoveries</u>	<u>Blanks</u>	<u>Overall Summary</u>
TCLP	SW846 1311	A				
VOC	SW846- 8240	A	A	A	A	A
BNA	SW846- 8270	A	N-1	N-2	A	See N-1 and N-2
PESTICIDE	SW846- 8080	N-3	N-4	A	A	See N-3 and N-4
HERBICIDE	SW846- 8150	A	N-5	A	A	A(See N-5)
METALS	SW846- 6010/ 7000	A	NA	A	N-6	A(See N-6)

A = Requirements set by method were met

NA = Not applicable

N-1 = See NOTE 1 on page 2

N-2 = See NOTE 2 on page 2

N-3 = See NOTE 3 on page 2

N-4 = See NOTE 4 on page 2

N-5 = See NOTE 5 on page 2

N-6 = See NOTE 6 on page 2


QA Officer


Laboratory Manager

UNR - PARIS - Soil Samples

R-900526

Page 2

- NOTE 1: The recoveries of the acid surrogates in each sample were below the accepted recovery limits as noted in the report. The surrogate recoveries in the blank were acceptable.
- NOTE 2: As noted in the report, three matrix spike recoveries were below the accepted limits. The blank spike recoveries were acceptable.
- NOTE 3: The holding time of forty days was exceeded on the samples for pesticide analysis except samples #9002490 and #9002492.
- NOTE 4: The surrogate recoveries were above the accepted limit in samples #9002487, blank 7-26 and the TCLP blank.
- NOTE 5: There are no limits for herbicide surrogate recovery. The surrogate recoveries for this set of samples were all below 10%. The blank surrogate recovery was above 10%.
- NOTE 6: Barium was detected in the TCLP blank. The sample data was qualified as estimated (U) as needed.

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
Analytical Report
Volatile Organics By SW846-8240
Results given in: ug/L

Report Date: 08-14-90 11:50
Prepared By *BM*
QA/QC Check *16*
Lab Manager *[Signature]*

Sample Number	S2 0-1	S2 5-6	S3 0-1	S3 4-5	S4 0-1
Lab ID Number	9002487	9002488	9002489	9002490	9002491
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**	SAMPLE	SAMPLE**	SAMPLE
Date of Collection	07-19-90	07-19-90	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90	07-20-90	07-20-90
Date of Extraction	-	07-30-90	07-30-90	07-30-90	07-30-90
Date of Analysis	-	08-02-90	08-02-90	08-02-90	08-02-90

Benzene	-	ND	ND	ND	ND
Carbon tetrachloride	-	[146]	[57]	ND	ND
Chlorobenzene	-	ND	ND	ND	ND
Chloroform	-	ND	ND	ND	ND
Dichloroethane, 1,2-	-	[9.0]	ND	ND	ND
Dichloroethene, 1,1-	-	ND	ND	ND	ND
Methylethyl ketone	-	ND	ND	ND	ND
Pyridine	-	ND	ND	ND	ND
SURR.(Bromofluorobenzene, 4-)	-	114	112	113	110
SURR.(Toluene-d8)	-	106	105	103	104
SURR.(d-4,1,2-Dichloroethane)	-	106	109	116	105
Tetrachloroethene	-	66	45	ND	[6.3]
Trichloroethene	-	<i>NA</i>	ND	ND	ND
Vinyl chloride	-	ND	ND	ND	ND

** NOTES :

- 9002487*SAMPLE - SURROGATE VALUES ARE REPORTED IN (%) FOR ALL SAMPLES IN THIS SET. NO SAMPLES WERE TAKEN FOR VOLATILES AND EXTRACTABLE SAMPLE WAS EXHAUSTED BEFORE THE VOLATILE LEACHATE COULD BE PREPARED.
- 9002488*SAMPLE - DATES OF EXTRACTION FOR ALL SAMPLES IN THIS SET ARE ACTUALLY 07/30/90 TO 07/31/90.
- 9002490*SAMPLE - RECOVERY FOR SURR.(d-4,1,2-Dichloroethane) ABOVE CONTROL LIMIT OF 114%.

- Not Applicable

ND Non detected at stated limit of detection

NA Not analyzed

[] - Below LOD, Above LOD

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
Analytical Report
Volatile Organics By SW846-8240
Results given in: ug/L

Report Date: 08-14-90 11:50
Prepared By *RM*
QA/QC Check *RM*
Lab Manager *RM*

Sample Number	S4 4-5	S5 0-1	S5 4-5
Lab ID Number	9002492	9002493	9002494
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE	SAMPLE	SAMPLE
Date of Collection	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90
Date of Extraction	07-30-90	07-30-90	07-30-90
Date of Analysis	08-02-90	08-02-90	08-02-90

Benzene	ND	ND	ND
Carbon tetrachloride	355	ND	ND
Chlorobenzene	ND	ND	ND
Chloroform	ND	ND	ND
Dichloroethane, 1,2-	ND	ND	ND
Dichloroethene, 1,1-	ND	ND	ND
Methylethyl ketone	ND	ND	ND
Pyridine	ND	ND	ND
SURR.(Bromofluorobenzene, 4-)	109	88	110
SURR.(Toluene-d8)	105	104	108
SURR.(d-4,1,2-Dichloroethane)	108	108	108
Tetrachloroethene	ND	ND	50.0
Trichloroethene	ND	ND	ND
Vinyl chloride	ND	ND	ND

** NOTES :

- Not Applicable
ND Non detected at stated limit of detection
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-900526
 Project Number: 192-02-04-00
 Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
 QA/QC Report - Spikes
 Volatile Organics By SU846-8240
 Results given in: ug/L

Report Date: 08-14-90 11:50
 Prepared By *RM*
 QA/QC Check *RM*
 Lab Manager *RM*

Sample Number	S3 0-1	S3 0-1	S3 0-1
Lab ID Number	9002489-SPIKE-1	9002489-SPIKE-1	9002489-SPIKE-1
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1	% RECOVERED 2
Date of Collection	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90
Date of Extraction	07-30-90	07-30-90	07-30-90
Date of Analysis	08-02-90	08-02-90	08-02-90
Benzene	57	83	93
Carbon tetrachloride	-	-	-
Chlorobenzene	-	-	-
Chloroform	-	-	-
Dichloroethane, 1,2-	-	-	-
Dichloroethene, 1,1-	56.4	99	110
Methylethyl ketone	-	-	-
Pyridine	-	-	-
SURR.(Bromofluorobenzene, 4-)	42.6	110	114
SURR.(Toluene-d8)	41.9	107	107
SURR.(d-4,1,2-Dichloroethane)	44.8	105	112
Tetrachloroethene	-	-	-
Trichloroethene	52.5	121	138
Vinyl chloride	-	-	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit of detection
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
QA/QC Report - Blanks
Volatile Organics By SW846-8240
Results given in: ug/L

Report Date: 08-14-90 11:50
Prepared By *RM*
QA/QC Check *RM*
Lab Manager *RM*

Sample Number	BLANK	LIMIT	LIMIT	SURROGATE
Lab ID Number	07-30-90	OF	OF	SPIKE
Matrix	SYSTEM	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE			

Date of Collection	
Date of Receipt	
Date of Extraction	07-30-90
Date of Analysis	08-02-90

Benzene	ND	5	17	-
Carbon tetrachloride	ND	50	165	-
Chlorobenzene	ND	5	17	-
Chloroform	ND	51	170	-
Dichloroethane, 1,2-	ND	5	17	-
Dichloroethene, 1,1-	ND	5	17	-
Methylethyl ketone	ND	50	165	-
Pyridine	ND	1500	5000	-
SURR.(Bromofluorobenzene, 4-)	113	-	-	42.6
SURR.(Toluene-d8)	108	-	-	41.9
SURR.(d-4,1,2-Dichloroethane)	104	-	-	44.8
Tetrachloroethene	ND	5	17	-
Trichloroethene	ND	5	17	-
Vinyl chloride	ND	20	66	-

** NOTES :

- Not Applicable
ND Non detected at stated limit of detection
NA Not analyzed

[] - Below LOD, Above LOD

Report Number: R-900526
 Project Number: 192-02-04-00
 Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
 Analytical Report
 Base/Neutral/Acid Extractables By SW846-1311/8270
 Results given in: ug/L

Report Date: 09-10-90 09:56
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	S2 0-1	S2 5-6	S3 0-1	S3 4-5	S4 0-1
Lab ID Number	9002487	9002488	9002489	9002490	9002491
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**
Date of Collection	07-19-90	07-19-90	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90	07-20-90	07-20-90
Date of Extraction	07-29-90	07-29-90	07-29-90	07-29-90	07-29-90
Date of Analysis	08-21-90	08-21-90	08-21-90	08-21-90	08-21-90

	S2 0-1	S2 5-6	S3 0-1	S3 4-5	S4 0-1
Acenaphthene	ND	ND	ND	ND	ND
Chloro-3-methylphenol, 4-	ND	ND	ND	ND	ND
Chlorophenol, 2-	ND	ND	ND	ND	ND
Cresols	ND	ND	ND	ND	ND
Cresylic Acid	ND	ND	ND	ND	ND
Dichlorobenzene, 1,4-	ND	ND	ND	ND	ND
Dinitrotoluene, 2,4-	ND	ND	ND	ND	ND
Hexachlorobenzene	ND	ND	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND	ND	ND
Hexachloroethane	ND	ND	ND	ND	ND
Methylphenol, 2-	ND	ND	ND	ND	ND
Methylphenol, 3-	ND	ND	ND	ND	ND
Methylphenol, 4-	ND	ND	ND	ND	ND
N-N'-bisodi-n-propylamine	ND	ND	ND	ND	ND
Nitrobenzene	ND	ND	ND	ND	ND
Nitrophenol, 4-	ND	ND	ND	ND	ND
Pentachlorophenol	ND	ND	ND	ND	ND
Phenol	ND	ND	ND	ND	ND
Pyrene	ND	ND	ND	ND	ND
SURR.(Fluorobiphenyl, 2-)	94.7	91.9	88.2	83.8	84.3
SURR.(Fluorophenol, 2-)	2.85	0.51	1.0	1.01	0.463
SURR.(Nitrobenzene, d-5)	113	119	114	98.3	84.4
SURR.(Phenol, d-6)	0.35	0.10	0.0	0.0	0.00
SURR.(Terphenyl, d-14-p-)	90.8	122	90.2	104	111
SURR.(Tribromophenol, 2,4,6-)	15.2	4.91	0	31.0	2.4
Trichlorobenzene, 1,2,4-	ND	ND	ND	ND	ND
Trichlorophenol, 2,4,5-	ND	ND	ND	ND	ND
Trichlorophenol, 2,4,6-	ND	ND	ND	ND	ND

** NOTES :

- 9002487*SAMPLE - SURROGATE VALUES ARE REPORTED IN (%) FOR ALL SAMPLES IN THIS SET. RECOVERY FOR SURR.(Fluorophenol,2-) BELOW ACCEPTED QC LIMIT OF 21% & RECOVERY FOR SURR.(Phenol,d-6) BELOW ACCEPTED QC LIMIT OF 10%.
- 9002488*SAMPLE - RECOVERIES FOR SURROGATES (Fluorophenol,2-) BELOW 21%, (Nitrobenzene,d-5) ABOVE 114%, (Phenol,d-6) BELOW 10% AND (Tribromophenol,2,4,6-) BELOW 10% ACCEPTED QC LIMITS.
- 9002489*SAMPLE - RECOVERIES FOR SURROGATES (Fluorophenol,2-) BELOW 21%, (Phenol,d-6) BELOW 10% AND (Tribromophenol,2,4,6-) BELOW 10% ACCEPTED QC LIMITS.
- 9002490*SAMPLE - RECOVERY FOR SURR.(Fluorophenol,2-) BELOW ACCEPTED QC LIMIT OF 21% AND SURR.(Phenol,d-6) BELOW ACCEPTED QC LIMIT OF 10%.

- Not Applicable

ND Non detected at stated limit of detection

NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-900526

Memphis Environmental Center

Report Date: 09-10-90 09:56

Project Number: 192-02-04-00

Analytical Report

Prepared By *RS*

Description: UNR - PARIS/LEACHATE SAMPLES

Base/Neutral/Acid Extractables By SW846-1311/8270

QA/QC Check *TS*

Results given in: ug/L

Lab Manager *TS*

Sample Number	S2 0-1	S2 5-6	S3 0-1	S3 4-5	S4 0-1
Lab ID Number	9002487	9002488	9002489	9002490	9002491
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**	SAMPLE**

9002491*SAMPLE - RECOVERIES FOR SURROGATES (Fluorophenol,2-) BELOW 21%, (Phenol,d-6) BELOW 10% AND (Tribromophenol,2,4,6-) BELOW 10% ACCEPTED QC LIMITS.

- Not Applicable

ND Non detected at stated limit of detection

NA Not analyzed

[] - Below LOQ, Above LOQ

Report Number: R-900526
 Project Number: 192-02-04-00
 Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
 Analytical Report
 Base/Neutral/Acid Extractables By SW846-1311/8270
 Results given in: ug/L

Report Date: 09-10-90 09:56
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	S4 4-5	S5 0-1	S5 4-5
Lab ID Number	9002492	9002493	9002494
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE**	SAMPLE**

Date of Collection	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90
Date of Extraction	07-29-90	07-29-90	07-29-90
Date of Analysis	08-21-90	08-21-90	08-21-90

Compound	S4 4-5	S5 0-1	S5 4-5
Acenaphthene	ND	ND	ND
Chloro-3-methylphenol, 4-	ND	ND	ND
Chlorophenol, 2-	ND	ND	ND
Cresols	ND	ND	ND
Cresylic Acid	ND	ND	ND
Dichlorobenzene, 1,4-	ND	ND	ND
Dinitrotoluene, 2,4-	ND	ND	ND
Hexachlorobenzene	ND	ND	ND
Hexachlorobutadiene	ND	ND	ND
Hexachloroethane	ND	ND	ND
Methylphenol, 2-	ND	ND	ND
Methylphenol, 3-	ND	ND	ND
Methylphenol, 4-	ND	ND	ND
N-N' sodi-n-propylamine	ND	ND	ND
Nitrobenzene	ND	ND	ND
Nitrophenol, 4-	ND	ND	ND
Pentachlorophenol	ND	ND	ND
Phenol	ND	ND	ND
Pyrene	ND	ND	ND
SURR.(Fluorobiphenyl, 2-)	82.6	94.5	105
SURR.(Fluorophenol, 2-)	7.09	6.28	1.1
SURR.(Nitrobenzene, d-5)	106	86.3	120
SURR.(Phenol, d-6)	2.63	5.03	0.0
SURR.(Terphenyl, d-14-p-)	93.0	132	169
SURR.(Tribromophenol, 2,4,6-)	50.4	69.1	52.4
Trichlorobenzene, 1,2,4-	ND	ND	ND
Trichlorophenol, 2,4,5-	ND	ND	ND
Trichlorophenol, 2,4,6-	ND	ND	ND

** NOTES :

- 9002492*SAMPLE - RECOVERY FOR SURR.(Fluorophenol,2-) BELOW 21% ACCEPTED QC LIMIT AND SURR.(Phenol,d-6) BELOW 10% ACCEPTED QC LIMIT.
- 9002493*SAMPLE - RECOVERY FOR SURR.(Fluorophenol,2-) BELOW 21% ACCEPTED QC LIMIT AND RECOVERY FOR SURR.(Phenol,d-6) BELOW 10% ACCEPTED QC LIMIT.
- 9002494*SAMPLE - RECOVERIES FOR SURR.(Fluorophenol,2-) BELOW 21%, SURR.(Nitrobenzene,d-5) ABOVE 114%, SURR.(Phenol,d-6) BELOW 10% AND SURR.(Terphenyl,d-14-p-) ABOVE 141% ACCEPTED QC LIMITS.

- Not Applicable

ND Non detected at stated limit of detection

NA Not analyzed

[] - Below LOD, Above LOD

Report Number: R-900526

Project Number: 192-02-04-00

Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center

QA/QC Report - Spikes

Base/Neutral/Acid Extractables By SW846-1311/8270

Results given in: ug/L

Report Date: 09-10-90 09:56

Prepared By: [Signature]

QA/QC Check: [Signature]

Lab Manager: [Signature]

Sample Number	S2 0-1	S2 0-1
Lab ID Number	9002487-SPIKE-1	9002487-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1**

Date of Collection	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90
Date of Extraction	07-29-90	07-29-90
Date of Analysis	08-21-90	08-21-90

Acenaphthene	100	93.5
Chloro-3-methylphenol, 4-	200	5.8
Chlorophenol, 2-	200	5.06
Cresols	-	-
Cresylic Acid	-	-
Dichlorobenzene, 1,4-	100	82.5
Dinitrotoluene, 2,4-	100	97.0
Hexachlorobenzene	-	-
Hexachlorobutadiene	-	-
Hexachloroethane	-	-
Methylphenol, 2-	-	-
Methylphenol, 3-	-	-
Methylphenol, 4-	-	-
N-Ethyl-N-propylamine	100	103
Nitrobenzene	-	-
Nitrophenol, 4-	200	23.3
Pentachlorophenol	200	37.0
Phenol	200	1.00
Pyrene	100	113
SURR.(Fluorobiphenyl, 2-)	40	95.1
SURR.(Fluorophenol, 2-)	80	1.45
SURR.(Nitrobenzene, d-5)	40	110
SURR.(Phenol, d-6)	80	1.28
SURR.(Terphenyl, d-14-p-)	40	100
SURR.(Tribromophenol, 2,4,6-)	80	9.55
Trichlorobenzene, 1,2,4-	100	93.7
Trichlorophenol, 2,4,5-	-	-
Trichlorophenol, 2,4,6-	-	-

** NOTES :

9002487*SPK1RCV1 - RECOVERIES FOR Chloro-3-methylphenol,4- 22%, Chlorophenol,2- 23%, Phenol 5%, SURR.(Fluorophenol,2-) 21%, SURR.(Phenol,d-6) 10% & SURR.(Tribromophenol,2,4,6-) 10% BELOW ACCEPTED QC LIMITS.

- Not Applicable

ND Non detected at stated limit of detection

NA Not analyzed

[] - Below LOD, Above LOD

Report Number: R-900526
 Project Number: 192-02-04-00
 Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
 QA/QC Report - Blanks
 Base/Neutral/Acid Extractables By SW846-1311/8270
 Results given in: ug/L

Report Date: 09-10-90 09:57
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	LIMIT	LIMIT
Lab ID Number	07-29 SPK ADD	07-29 SPK RCV%	07-29-90	OF	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	DETECTION	QUANTITATION
Type	SAMPLE	SAMPLE**	SAMPLE**		

Date of Collection

Date of Receipt

Date of Extraction

Date of Analysis

07-29-90 07-29-90 07-29-90
 08-21-90 08-21-90 08-21-90

Acenaphthene	100	98.2	ND	10	-
Chloro-3-methylphenol, 4-	200	99.7	ND	50	-
Chlorophenol, 2-	200	110	ND	50	-
Cresols	-	-	ND	50	-
Cresylic Acid	-	-	ND	50	-
Dichlorobenzene, 1,4-	100	91.3	ND	10	-
Dinitrotoluene, 2,4-	100	100	ND	10	-
Hexachlorobenzene	-	-	ND	10	-
Hexachlorobutadiene	-	-	ND	10	-
Hexachloroethane	-	-	ND	10	-
Methylphenol, 2-	-	-	ND	50	-
Methylphenol, 3-	-	-	ND	50	-
Methylphenol, 4-	-	-	ND	50	-
N-Ni sodi-n-propylamine	100	125	ND	10	-
Nitrobenzene	-	-	ND	10	-
Nitrophenol, 4-	200	42.6	ND	50	-
Pentachlorophenol	200	130	ND	50	-
Phenol	200	52.9	ND	50	-
Pyrene	100	135	ND	10	-
SURR.(Fluorobiphenyl, 2-)	40	101	92.6	-	-
SURR.(Fluorophenol, 2-)	80	84.6	81.1	-	-
SURR.(Nitrobenzene, d-5)	40	115	92.9	-	-
SURR.(Phenol, d-6)	80	49.1	40.6	-	-
SURR.(Terphenyl, d-14-p-)	40	120	109	-	-
SURR.(Tribromophenol, 2,4,6-)	80	110	100	-	-
Trichlorobenzene, 1,2,4-	100	100	ND	10	-
Trichlorophenol, 2,4,5-	-	-	ND	50	-
Trichlorophenol, 2,4,6-	-	-	ND	50	-

** NOTES :

BLANK 07-29 SPK RCV% - RECOVERIES FOR PYRENE ABOVE ACCEPTED QC LIMIT OF 115% AND SURR.(Nitrobenzene,d-5) ABOVE ACCEPTED QC LIMIT OF 114%.

BLANK 07-29-90 - TCLP BLANK.

- Not Applicable
 ND Non detected at stated limit of detection
 NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
QA/QC Report - Blanks
Base/Neutral/Acid Extractables By SW846-1311/8270
Results given in: ug/L

Report Date: 09-10-90 09:57
Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number
Lab ID Number
Matrix
Type

SURROGATE
SPIKE
LEVELS

Date of Collection
Date of Receipt
Date of Extraction
Date of Analysis

Acenaphthene	-
Chloro-3-methylphenol, 4-	-
Chlorophenol, 2-	-
Cresols	-
Cresylic Acid	-
Dichlorobenzene, 1,4-	-
Dinitrotoluene, 2,4-	-
Hexachlorobenzene	-
Hexachlorobutadiene	-
Hexachloroethane	-
Methylphenol, 2-	-
Methylphenol, 3-	-
Methylphenol, 4-	-
N-N'-bisdi-n-propylamine	-
Nitrobenzene	-
Nitrophenol, 4-	-
Pentachlorophenol	-
Phenol	-
Pyrene	-
SURR.(Fluorobiphenyl, 2-)	40
SURR.(Fluorophenol, 2-)	80
SURR.(Nitrobenzene, d-5)	40
SURR.(Phenol, d-6)	80
SURR.(Terphenyl, d-14-p-)	40
SURR.(Tribromophenol, 2,4,6-)	80
Trichlorobenzene, 1,2,4-	-
Trichlorophenol, 2,4,5-	-
Trichlorophenol, 2,4,6-	-

NOTES :

- Not Applicable

ND Non detected at stated limit of detection

NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-900526
 Project Number: 192-02-04-00
 Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
 Analytical Report
 Pesticides By Method: SW846-8080
 Results given in: ug/L

Report Date: 09-10-90 15:38
 Prepared By *LE*
 QA/QC Check *LE*
 Lab Manager *LE*

Sample Number	S2 0-1	S2 5-6	S3 0-1	S3 4-5	S4 0-1
Lab ID Number	9002487	9002488	9002489	9002490	9002491
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection	07-19-90	07-19-90	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90	07-20-90	07-20-90
Date of Extraction	07-26-90	07-26-90	07-26-90	07-30-90	07-26-90
Date of Analysis	09-06-90	09-06-90	09-06-90	09-06-90	09-06-90

	S2 0-1	S2 5-6	S3 0-1	S3 4-5	S4 0-1
BHC, gamma (Lindane)	ND	ND	ND	ND	ND
Chlordane	ND	ND	ND	ND	ND
Endrin	ND	ND	ND	ND	ND
Heptachlor	ND	ND	ND	ND	ND
Heptachlor epoxide	ND	ND	ND	ND	ND
Methoxychlor	ND	ND	ND	ND	ND
SURR.(TCMX)	220	66.7	71.1	58.3	69.2
Toxaphene	ND	ND	ND	ND	ND

** NOTES :
 9002487*SAMPLE - SURROGATE VALUES ARE REPORTED IN (%) FOR ALL SAMPLES IN THIS SET. RECOVERY FOR SURR.(TCMX) ABOVE ACCEPTABLE LIMIT OF 154%.

Sample Number	S4 4-5	S5 0-1	S5 4-5
Lab ID Number	9002492	9002493	9002494
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE	SAMPLE	SAMPLE
Date of Collection	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90
Date of Extraction	07-30-90	07-26-90	07-26-90
Date of Analysis	09-06-90	09-06-90	09-06-90

	S4 4-5	S5 0-1	S5 4-5
BHC, gamma (Lindane)	ND	ND	ND
Chlordane	ND	ND	ND
Endrin	ND	ND	ND
Heptachlor	ND	ND	ND
Heptachlor epoxide	ND	ND	ND
Methoxychlor	ND	ND	ND
SURR.(TCMX)	58.6	55.9	63.3
Toxaphene	ND	ND	ND

** NOTES :

- Not Applicable
 ND Non detected at stated limit of detection
 NA Not analyzed

[] - Below LOQ, Above LOO

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
QA/QC Report - Laboratory Duplicate Samples
Pesticides By Method: SW846-8080
Results given in: ug/L

Report Date: 09-10-90 15:38
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number	SS 0-1	SS 0-1
Lab ID Number	9002493	9002493
Matrix	LEACHATE	LEACHATE
Type	SAMPLE	LAB DUPLICATE
Date of Collection	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90
Date of Extraction	07-26-90	07-26-90
Date of Analysis	09-06-90	09-06-90

BHC, gamma (Lindane)	ND	ND
Chlordane	ND	ND
Endrin	ND	ND
Heptachlor	ND	ND
Heptachlor epoxide	ND	ND
Methoxychlor	ND	ND
SURR.(TCMX)	55.9	75.2
Toxaphene	ND	ND

** NOTES :

- Not Applicable
ND Non detected at stated limit of detection
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
QA/QC Report - Spikes
Pesticides By Method: SM846-8080
Results given in: ug/L

Report Date: 09-10-90 15:38
Prepared By: *LB*
QA/QC Check: *LB*
Lab Manager: *LB*

Sample Number	S2 0-1	S2 0-1
Lab ID Number	9002487-SPIKE-1	9002487-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1
Date of Collection	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90
Date of Extraction	07-26-90	07-26-90
Date of Analysis	09-06-90	09-06-90
BHC, gamma (Lindane)	20	96.3
Chlordane	-	-
Endrin	50	74.9
Heptachlor	20	95.2
Heptachlor epoxide	-	-
Methoxychlor	-	-
SURR.(TCMX)	4	86.9
Toxaphene	-	-

** NOTES :

- Not Applicable
ND Not detected at stated limit of detection
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-900526
 Project Number: 192-02-04-00
 Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
 QA/QC Report - Blanks
 Pesticides By Method: SW846-8080
 Results given in: ug/L

Report Date: 09-10-90 15:38
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	BLANK	BLANK
Lab ID Number	07-26 SPK ADD	07-26 SPK RCV%	07-26-90-1	07-26-90-2	07-30 SPK ADD
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	SYSTEM
Type	SAMPLE	SAMPLE	SAMPLE**	SAMPLE**	SAMPLE

Date of Collection					
Date of Receipt					
Date of Extraction	07-26-90	07-26-90	07-26-90	07-26-90	07-30-90
Date of Analysis	09-06-90	09-06-90	09-06-90	09-06-90	09-06-90

BHC, gamma (Lindane)	10	119	ND	ND	10
Chlordane	-	-	ND	ND	-
Endrin	25	147	ND	ND	25
Heptachlor	10	105	ND	ND	10
Heptachlor epoxide	-	-	ND	ND	-
Methoxychlor	-	-	ND	ND	-
SURR.(TCMX)	2	83.3	251	199	2
Toxaphene	-	-	ND	ND	-

** NOTES :

BLANK 07-26-90-1 - RECOVERY FOR SURR.(TCMX) ABOVE ACCEPTABLE LIMIT OF 154%.
 BLANK 07-26-90-2 - RECOVERY FOR SURR.(TCMX) ABOVE ACCEPTABLE LIMIT OF 154%. TCLP BLANK.

Sample Number	BLANK	BLANK	LIMIT	LIMIT	SURROGATE
Lab ID Number	07-30 SPK RCV%	07-30-90	OF	OF	SPIKE
Matrix	SYSTEM	SYSTEM	DETECTION	QUANTITATION	LEVELS
Type	SAMPLE	SAMPLE			

Date of Collection		
Date of Receipt		
Date of Extraction	07-30-90	07-30-90
Date of Analysis	09-06-90	09-06-90

BHC, gamma (Lindane)	126	ND	0.5	-	-
Chlordane	-	ND	2.5	-	-
Endrin	141	ND	2.5	-	-
Heptachlor	108	ND	0.5	-	-
Heptachlor epoxide	-	ND	0.5	-	-
Methoxychlor	-	ND	2.5	-	-
SURR.(TCMX)	93.4	71.2	-	-	2
Toxaphene	-	ND	25	-	-

** NOTES :

- Not Applicable
 ND Non detected at stated limit of detection
 NA Not analyzed

[] - Below LOQ, Above LOQ

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
Analytical Report
Herbicides By SW846-8150
Results given in: ug/L

Report Date: 09-06-90 14:47
Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number	S2 0-1	S2 5-6	S3 0-1	S3 4-5	S4 0-1
Lab ID Number	9002487	9002488	9002489	9002490	9002491
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection	07-19-90	07-19-90	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90	07-20-90	07-20-90
Date of Extraction	07-27-90	07-27-90	07-27-90	07-27-90	07-27-90
Date of Analysis	08-01-90	08-01-90	08-01-90	08-01-90	08-01-90

2,4-D	ND	ND	ND	ND	ND
SURR. (DCAA)	4.5	4.6	5.9	3.3	3.8
Silvex (2,4,5-TP)	ND	ND	ND	ND	ND

** NOTES :

9002487*SAMPLE - SURROGATE VALUES ARE REPORTED IN (%) FOR ALL SAMPLES IN THIS SET.

Sample Number	S4 4-5	S5 0-1	S5 4-5
Lab ID Number	9002492	9002493	9002494
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE	SAMPLE	SAMPLE
Date of Collection	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90
Date of Extraction	07-27-90	07-27-90	07-27-90
Date of Analysis	08-01-90	08-01-90	08-01-90

2,4-D	ND	ND	ND
SURR. (DCAA)	0.3	0	0
Silvex (2,4,5-TP)	ND	ND	ND

** NOTES :

- Not Applicable
ND Non detected at stated limit of detection
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
QA/QC Report - Spikes
Herbicides By SW846-8150
Results given in: ug/L

Report Date: 09-06-90 14:48
Prepared By *LS*
QA/QC Check *LS*
Lab Manager *LS*

Sample Number	S2 0-1	S2 0-1
Lab ID Number	9002487-SPIKE-1	9002487-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1

Date of Collection	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90
Date of Extraction	07-27-90	07-27-90
Date of Analysis	08-01-90	08-01-90

2,4-D	19.8	9.85
SURR.(DCAA)	20	3.9
Silvex (2,4,5-TP)	20	10.8

** NOTES :

- Not Applicable
ND Not detected at stated limit of detection
NA Not analyzed

[] - Below LOD, Above LOD

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
QA/QC Report - Blanks
Herbicides By SW846-8150
Results given in: ug/L

Report Date: 09-06-90 14:48
Prepared By: [Signature]
QA/QC Check: [Signature]
Lab Manager: [Signature]

Sample Number	BLANK	BLANK	BLANK	BLANK	LIMIT
Lab ID Number	07-27 SPK ADD	07-27 SPK RCV%	07-27-90-1	07-27-90-2	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	DETECTION
Type	SAMPLE	SAMPLE	SAMPLE**	SAMPLE**	

Date of Collection					
Date of Receipt					
Date of Extraction	07-27-90	07-27-90	07-27-90	07-27-90	
Date of Analysis	08-01-90	08-01-90	08-01-90	08-01-90	

2,4-D	9.9	16.5	ND	ND	0.1
SURR.(DCAA)	10	8.3	4.8	13.6	-
Silvex (2,4,5-TP)	10	16.6	ND	ND	0.5

** NOTES :
BLANK 07-27-90-1 - TCLP BLANK.
BLANK 07-27-90-2 - SYSTEM BLANK.

Sample Number	LIMIT	SURROGATE
Lab ID Number	OF	SPIKE
Matrix	QUANTITATION	LEVELS
Type		

Date of Collection	
Date of Receipt	
Date of Extraction	
Date of Analysis	

2,4-D	-
SURR.(DCAA)	20
Silvex (2,4,5-TP)	-

** NOTES :

- Not Applicable
ND Non detected at stated limit of detection
NA Not analyzed

[] - Below LOQ, Above LOQ

Report Number: R-900526
 Project Number: 192-02-04-00
 Description: UMR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
 Analytical Report
 Metals By SW846-1311/6010/7000
 Results given in: ug/L

Report Date: 08-10-90 14:12
 Prepared By: [Signature]
 QA/QC Check: [Signature]
 Lab Manager: [Signature]

Sample Number	S2 0-1	S2 5-6	S3 0-1	S3 4-5	S4 0-1
Lab ID Number	9002487	9002488	9002489	9002490	9002491
Matrix	LEACHATE	LEACHATE	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE**	SAMPLE	SAMPLE	SAMPLE	SAMPLE
Date of Collection	07-19-90	07-19-90	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90	07-20-90	07-20-90
Date of Digestion	07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90
Date of Analysis	07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90

	S2 0-1	S2 5-6	S3 0-1	S3 4-5	S4 0-1
Arsenic	28	ND	ND	ND	ND
Barium	5720	2510 U	2100 U	1050 U	710 U
Cadmium	939	40	402	ND	65
Chromium	ND	ND	ND	ND	ND
Lead	ND	ND	ND	ND	ND
Mercury	ND	ND	ND	ND	ND
Selenium	8	7	18	6	ND
Silver	30	22	26	13	10

** NOTES :
 9002487*SAMPLE - Hg DIGESTION AND ANALYSIS PERFORMED ON 07/30/90.

Sample Number	S4 4-5	S5 0-1	S5 4-5
Lab ID Number	9002492	9002493	9002494
Matrix	LEACHATE	LEACHATE	LEACHATE
Type	SAMPLE	SAMPLE	SAMPLE
Date of Collection	07-19-90	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90	07-20-90
Date of Digestion	07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90
Date of Analysis	07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90

	S4 4-5	S5 0-1	S5 4-5
Arsenic	ND	ND	ND
Barium	651 U	1320 U	996 U
Cadmium	ND	ND	ND
Chromium	ND	ND	ND
Lead	ND	ND	ND
Mercury	ND	ND	ND
Selenium	ND	ND	ND
Silver	10	15	13

** NOTES :

- Not Applicable
 ND Non detected at stated limit of detection
 NA Not analyzed

[] - Below LOD, Above LOD

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
QA/QC Report - Spikes
Metals By SW846-1311/6010/7000
Results given in: ug/L

Report Date: 08-10-90 14:12
Prepared By *[Signature]*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number	S2 0-1	S2 0-1
Lab ID Number	9002487-SPIKE-1	9002487-SPIKE-1
Matrix	LEACHATE	LEACHATE
Type	ADDED LEVEL	% RECOVERED 1

Date of Collection	07-19-90	07-19-90
Date of Receipt	07-20-90	07-20-90
Date of Digestion	07-90 TO 08-90	07-90 TO 08-90
Date of Analysis	07-90 TO 08-90	07-90 TO 08-90

Arsenic	200	126
Barium	5000	113
Cadmium	1000	102
Chromium	1000	105
Lead	1000	101
Mercury	4.76	109
Selenium	200	79.9
Silver	500	99.6

** NOTES :

- Not Applicable
ND Not detected at stated limit of detection
NA Not analyzed

[] - Below LOQ, Above LOD

Report Number: R-900526
Project Number: 192-02-04-00
Description: UNR - PARIS/LEACHATE SAMPLES

Memphis Environmental Center
QA/QC Report - Blanks
Metals By SW846-1311/6010/7000
Results given in: ug/L

Report Date: 08-10-90 14:12
Prepared By *RH*
QA/QC Check *[Signature]*
Lab Manager *[Signature]*

Sample Number	BLANK	BLANK	BLANK	BLANK	LIMIT
Lab ID Number	07-90 SPK ADD	07-90 SPK RCVX	07-90-1	07-90-2	OF
Matrix	SYSTEM	SYSTEM	SYSTEM	SYSTEM	DETECTION
Type	SAMPLE	SAMPLE	SAMPLE	SAMPLE	

Date of Collection

Date of Receipt

Date of Digestion

Date of Analysis

07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90	07-90 TO 08-90
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Arsenic	200	96.5	ND	ND	10
Barium	5000	96.9	464	ND	200
Cadmium	1000	101	ND	ND	8
Chromium	1000	105	ND	ND	10
Lead	1000	107	ND	ND	50
Mercury	4.76	107	ND	ND	0.2
Selenium	200	106	ND	ND	5
Silver	500	106	ND	ND	10

** NOTES :

Sample Number	LIMIT
Lab ID Number	OF
Matrix	QUANTITATION
Type	

Date of Collection

Date of Receipt

Date of Digestion

Date of Analysis

Arsenic

Barium

Cadmium

Chromium

Lead

Mercury

Selenium

Silver

** NOTES :

- Not Applicable
ND Non detected at stated limit of detection
NA Not analyzed

[] - Below LOQ, Above LOQ

[illegible]



217/782-6760

**Reference
Number 9**

Refer to: 0450305012 -- Edgar County
UNR Home Products/Paris
Superfund- Fiscal

CERTIFIED #

7367389469

April 1, 1991

Mr. Donald W. Fowler
Spriggs & Hollinsworth
1350 I Street, NW, Ninth Floor
Washington, D.C., 20005-3305

Dear Mr. Fowler:

The Agency has received a report from you dated September 7, 1990 detailing sampling data obtained from lagoon waters, sediments, groundwater and soils from the Paris facility. It appears that this site would qualify for investigation and remediation under IEPA's Pre-notice Site Cleanup Program.

In accordance with Section 22.2(m) of the Environmental Protection Act (Act), Ill. Rev. Stat., ch. 111 1/2, par. 1022.2(m), which became effective on August 31, 1989, the "Agency may, subject to available resources, agree to provide review and evaluation services for actions at sites where hazardous substances or pesticides may be present for which the owner or operator requested such services in writing or where another person has requested such services in writing and supplied the Agency with the written consent of the owner or operator of the site." Section 22.2(m) also provides for reimbursement to the Agency for reasonable oversight costs and for the Agency to require a partial advance payment.

Consequently, before the Agency can agree to provide review and evaluation services for removal or remedial actions at this site, we request that you provide us with two copies of the executed Review and Evaluation Services Agreement. We also ask that your client provide a partial prepayment of \$5,000. The Agreement should be sent to me. The payment should be made by check payable to:

Treasurer, State of Illinois
For Deposit to the Hazardous Waste Fund

Please identify your employer identification number (FEIN) or social security number and the site name on your check. Your advance payment and one copy of this letter should be forwarded to:

Illinois Environmental Protection Agency
Division of Administration

Fiscal Services Section
2200 Churchill Road
P.O. Box 19276
Springfield, IL 62794-9276

Please feel free to contact me at the above address and phone number.

Sincerely,



Robert A. Carson, P.E., Acting Manager
Immediate Removal Unit
Remedial Project Management Section
Division of Land Pollution Control

attachment

cc: Division File
Champaign Region
Brian Martin
Mary Jo Heise, Fiscal
Carol Meyer
Bernie Jern



REVIEW AND EVALUATION SERVICES AGREEMENT

In consideration for the Illinois Environmental Protection Agency's agreement to provide, subject to available resources, review and evaluation services for removal and/or remedial actions at the facility listed below, the undersigned hereby agrees to:

- (a) submit a work plan for actions at the site;
- (b) allow for or otherwise arrange a site visit or other site evaluation by the Agency;
- (c) perform the work as approved by the Agency;
- (d) pay all laboratory fees incurred by the Agency for analytical testing performed at the site; and
- (e) pay any reasonable costs incurred and documented by the Agency in providing such services within thirty (30) days after receiving the billing statement and documentation.

I understand that this service agreement may be cancelled by providing written notification to the Agency project manager. The written notification shall be effective fifteen (15) days after the Agency's receipt of the notification. I agree to provide reimbursement for all costs incurred by the Agency prior to the effective date of the cancellation of the service agreement.

I hereby certify that I have the authority to enter into this agreement.

(Signature of Official)

(Name of Official)

(Company Name)

(FEIN or SSN)

(Company Address)

(Site Name)

(Site Address)

(Date)



217/782-6760

Refer to: 0450305012--Edgar County
Paris/UNR Home Products
General Correspondence

April 23, 1991

Mr. Frank Clinton, Mayor
City of Paris
123 S. Central Ave.
Paris, IL 61944

RECEIVED
SPRINGFIELD REGION
APR 24 1991
Environmental Protection Agency
State of Illinois

Dear Mr. Clinton,

At our meeting on November 27, 1990, you requested that the Agency keep you informed on the progress at the UNR site in Paris. We have met several times with UNR or their representatives to discuss the remediation at this site.

After explaining the Pre-notice Site Cleanup program, we recently sent the enclosed letter to UNR's attorney to determine if UNR was interested in participating in the program. As you can see from their enclosed response, UNR has declined to participate in the Pre-notice Site Cleanup Program at this time.

As I explained at our last meeting, the Agency has not received sufficient funding to take further action at this time. The information provided by UNR indicates that there may be other areas of the site that are potentially of concern besides those that are currently under remediation. Without UNR's voluntary effort however, the Agency cannot address these areas.

If you have any questions about this situation, or the enclosed letters, please contact me.

Sincerely,

Brian H. Martin, Project Manager
Immediate Removal Unit
Remedial Project Management Section
Division of Land Pollution Control

Enclosure

cc: Division File
Central Region
Bob Carson
Dave Jansen
Greg Michaud

**Reference
Number 10**

SPRIGGS & HOLLINGSWORTH

ATTORNEYS AND COUNSELORS

1350 I STREET, N.W.

NINTH FLOOR

WASHINGTON, D. C. 20005-3305

TELEPHONE: (202) 898-5800

TELECOPIER: (202) 682-1639

CABLE: SHWSH

TWX: 710-822-0121

WRITER'S DIRECT DIAL NO.

898-

DONALD W. FOWLER

April 19, 1991

Mr. Robert A. Carson, P.E.
Acting Manager, Immediate Removal Unit
Remedial Project Management Section
Division of Land Pollution Control
Illinois Environmental Protection Agency
P.O. Box 19276
Springfield, IL 62794-9276

Re: 0450305012 -- Edgar County
UNR Home Products/Paris
Superfund - Fiscal

Dear Mr. Carson:

We are writing in response to your letter of April 1, 1991 concerning the UNR facility in Paris, Illinois. We appreciate your apprising us of the potential availability of IEPA's Pre-notice Site Cleanup Program.

Following receipt of your letter last week, I spoke by telephone with Brian Martin, who indicated that the question of UNR's possible participation in that Program had first been discussed in a meeting last August attended by Terry French, one of UNR's managers. Although I was aware of that meeting, I did not understand until my conversation with Mr. Martin that IEPA had been awaiting UNR's advice as to whether it wished to avail itself of IEPA's services under the Program. I apologize for any misunderstanding on our part in that regard.

In the interim, UNR has proceeded with site work based upon the sampling data mentioned in your letter and plans described in meetings and correspondence between IEPA and UNR's environmental consultants, including those presented in connection with the surface water discharge permit issued for the lagoon closure work on the plant site. Under the circumstances, although we appreciate your bringing the benefits of the Pre-notice Site Cleanup Program to our attention, the Company has decided to forego participation in the Program at this time.

This decision is not intended in any way to diminish our long-expressed commitment to cooperate fully with IEPA. **RECEIVED**

APR 22 1991

IEPA/DLPC

SPRIGGS & HOLLINGSWORTH

Mr. Robert A. Carson, P.E.
April 19, 1991
Page Two

that end, please feel free to call me at any time if you or your staff have questions with respect to the Paris facility.

We appreciate your assistance and cooperation.

Sincerely yours,

A handwritten signature in dark ink, appearing to be 'D. W. Fowler', written over a horizontal line.

Donald W. Fowler

DWF:sas

cc: Brian Martin
John M. Wursta, Esq.
Terry French



File

217/782-6761

Refer to: 0450305012 -- Edgar County
UNR Home Products/Paris
General Correspondence

October 22, 1991

Mayor Frank Clinton
City of Paris
122 South Central Avenue
Paris, Illinois 61944

Dear Mr. Clinton:

An article in the Paris Beacon-News entitled "UNR's 'Hazardous Waste Site' Has Been Cleared, Reclaimed Through Industry-City Cooperation" raises concerns about conclusions which City officials may have drawn regarding the environmental condition of this site. Some clarification of IEPA involvement at the site seems to be in order.

A connection permit was issued by IEPA's Division of Water Pollution Control to allow the discharge of lagoon water to the Paris Publicly Owned Treatment Works (POTW), but this does not constitute approval of a closure or remediation plan. It merely means that the IEPA has concluded that discharge of lagoon water to the sewer will not upset the POTW.

The cleanup which UNR has conducted appears to have been limited to removing lagoon water and bulldozing the dikes. Contaminated soil was not removed from the lagoons or any other area of concern at the site. The attached extract from the "Interim Environmental Survey" prepared by Goodwin & Broms identifies environmental problems at the site more specifically. The lagoon sediments which were left at the site are contaminated with barium, cadmium, chromium, iron, lead and nickel. This should be taken into consideration by anyone contemplating the planting of wheat (or any other crop) on the site.

Soil samples taken elsewhere at the site reveal similar contamination, apparently due to disposal of waste from the porcelain enameling process. The report states that "a large fraction of the portion of the northeast tract lying east and north of the manufacturing building is covered with this material. It may be that, due to the marshy character of this portion of the property, the waste was used as fill material over a period of many years." To my knowledge, no remediation was conducted in this area.

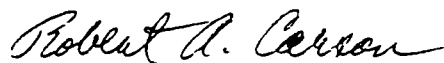
The report prepared by Memphis Environmental Center, Inc. concluded that soil contamination at the site was not of

great concern because the soil was not so heavily contaminated that the soil would be considered a hazardous waste. The IEPA takes issue with this conclusion; the Goodwin & Broms report conclusions are more accurate. Similarly, I believe the statement in the article attributed to UNR Corporate Counsel Jack Wursta that "the site is in compliance with all applicable environmental laws" to be incorrect. The environmental audit reports show that hazardous substances have been released to the environment - a violation of Sections 12(a) and 12(d) of the Illinois Environmental Protection Act.

I raise these issues now because it is quite possible that the IEPA will later be requested to provide a letter stating that the site is safe for development. For the reasons identified above, such a letter cannot be issued until contamination at the site is fully addressed.

If we can be of assistance to the City in clarifying or resolving environmental issues at the site, please contact me or Brian Martin of my staff.

Sincerely,



Robert A. Carson, P.E., Acting Manager
Immediate Removal Unit
Remedial Project Management Section
Division of Land Pollution Control

attachment

cc: Division File
Champaign Region
Bill Busch, DWPC
Tom McSwiggin, DWPC
Ned Jennison, Paris Beacon-News
Brian Martin, w/o attachment
Dan Rion

12/91

0450305012
EDGAR CO
PARIS
UNR



THIS 10-acre level field located behind the former UNR Industries "north plant" at the west edge of Paris has been cleared of three former waste treatment lagoons, and soon will support a crop of winter wheat. Plans by UNR and the City of Paris were submitted last year to the Illinois Environmental Protection Agency for remedial action on the lagoons, which contained some traces of heavy metals as a result of 20 years of metal fabrication. This plan resulted in the site being added to the state's hazardous waste locations, but does not pose any threat to the surrounding community, according to local officials. (Bacon-News Photo)

cial action on the lagoons, which contained some traces of heavy metals as a result of 20 years of metal fabrication. This plan resulted in the site being added to the state's hazardous waste locations, but does not pose any threat to the surrounding community, according to local officials. (Bacon-News Photo)

UNR's 'Hazardous Waste Site' Has Been Cleared, Reclaimed Through Industry-City Cooperation

It's "old news" that a tract of land behind the former UNR Industries manufacturing plants on Route 133 west of Paris is listed as a hazardous waste site by the Illinois Environmental Protection Agency.

A story carried by some area newspapers and written by the Associated Press listed the Paris plant as one of the current 105 Illinois hazardous waste sites documented by the IEPA. The major portion of the AP article concerned a cleanup activity in a Chicago suburban site which was halted when the state environmental agency ran out of funds.

Listing of the site in Paris by the state not only is "nothing new," according to Paris city administrator Paul Ruff, but takes no notice of voluntary cleanup efforts underway for the past year by UNR Industries in cooperation with the city.

"According to their report, UNR has spent well over \$100,000 to drain and remove the three lagoons behind the north plant," Ruff said.

That work, however, has not been reviewed by the IEPA and no action has been taken to remove the site from the state's list, or to indicate any further action that would be required to make it a "clean site" in the eyes of the state.

The cleanup followed the closing of the UNR Home Products division in Paris several years ago, and the poten-

tial sale of the 80-acre property for new industrial use. The two plants had manufactured stainless steel tanks and plumbing fixtures, and porcelain-enamel barbecue grills. Originally, the factory located on Route 133 was constructed by the Bastien-Blessing Co. to manufacture commercial fountain equipment.

UNR employed Memphis Environmental, environmental engineers, to study the lagoon area, determine any potential hazard to the community, and recommend a "closure" procedure, Ruff said. The study was shared with the Illinois EPA, and resulted in the IEPA permit to close the ponds and pump the contents into the city's sanitary sewage system.

Several million gallons of water were pumped into the sanitary mains over the past years and closely monitored by the city's sewage plant operators. The ponds were found to contain traces of heavy metals which were a byproduct of the manufacturing processes, but the engineers diagnosed no "migration" of the contamination from the pond areas.

Bob Carson, IEPA manager for its hazardous waste cleanup program, said the state agency did discuss a total cleanup of the tract with UNR officials in late 1990, after engineering studies had been submitted by the company and by a prospective purchaser of the site.

At that time, Carson said, UNR declined to participate in a total cleanup project to be managed by the IEPA, similar to the Velsicol site cleanup north of Marshall. Carson said his division had no knowledge of the cleanup work which the company later completed at the Paris plant, even though another IEPA division had reviewed the plan and issued a discharge permit. He admitted that sometimes one division "does not always communicate with other divisions."

Carson added because of lack of

funds, the IEPA cannot by itself undertake any hazardous waste cleanup in Illinois at this time.

Brian Martin, a staff member in the land pollution control division of the IEPA, was quoted as levels of heavy metals, such as chromium and arsenic, found by the engineering investigations were high enough to constitute a concern of earth and groundwater contamination.

But UNR corporate counsel Jack Wursta was quoted as the company is in full compliance with all applicable environmental laws.

The state may become involved if UNR or Paris city officials including PEDCO are successful in the future in obtaining new manufacturing operations for the UNR property. Several prospects have looked at the site since the Home Products division left, including Bootz Manufacturing of Evansville, Ind., whose initial study of the property in 1989 triggered the concerns and subsequent removal of the holding ponds.

Meanwhile, the approximately 10-acre tract at the back of the property which formerly held the lagoons soon will be growing a useful crop to replace the weeds found in recent years. The Paris Future Farmers of America chapter has received permission to drill a crop of winter wheat on the area recently graded level by B & T Drainage and Adams Construction.

The IEPA chapter also farms a portion of the UNR site west of the plants.

The front factory building remains vacant, awaiting a new industrial use, but has received a new roof and other improvements by UNR in anticipation of a sale. The larger back plant, totaling 200,000 square feet, is in use as leased industrial warehousing, and by another UNR division, Midwest Cable, which supplies equipment to the cable television industry.

Reference
Number 11

TELEPHONE MEMO

Field Operation Section - Region 4

For: UNARCO (Edgar Co.) Date: 1/29/92 Time: _____

From: Brian Martin

of DLPC / State Superfund / Closure - Spfd Phone: 782-9951

Called _____ Return Call _____ Will Call Back _____ We Called X

Subject: Closure of UNARCO's Old WWTF (Lagoons)

Summary of Conversation: Greg Goodie (Dwpc/Lakes) had called to ask about known point sources to Paris Twin Lakes (study will be conducted 1992 as part of Clean Lakes Program) He asked about UNARCO in particular since they had information indicating a possible overflow to the lake from this facility.

Check of WPC/FOS-4 files revealed following: 2 lagoons provided process w/w treatment (settling, pH neutralization) for anodizing process. Lagoons were to have no discharge, but leaching/overflow

also: 3rd lagoon
set one time
used for
domestic
sewage

Action Required: incidents occurred a few times over the years.

The last correspondence in file is letter from Memphis Environmental Center (contracted by current owners Midwest CATV-Paris) proposing following cleanup: pump lagoon water to Paris WWTF, bulldoze & fill lagoons. Permit for drawdown water issued by Dwpc ~~over~~

Action Taken: _____

I called Martin 1/30 to get more info. He said: Midwest CATV is a subsidiary of UNARCO. They tried to sell the property recently, but an environmental audit indicated extensive contamination w/ hazardous materials, particularly heavy metals. As a result, Midwest CATV

Receiver initial _____

Action initial _____

ACTION DATE _____

→
oree

went out + got themselves a new environmental firm (Memphis Environmental), which Martin is not too impressed with. Because the State superfund program has no funds, DLPC tried to get Midwest CATV to enter a voluntary closure plan, but they refused. Because DLPC wants them to remove + dispose the contaminated sludge instead of burying it. W-CATV used the DLPC permit to tell the local media that they had an IEPA-approved closure plan, which is not the case (+ DLPC informed the media of that fact.) At this point, DLPC has no options available except to register the site for grading under the Federal CERCLA program, which BM has done.

Action #1 - called Greg Gaudin + relayed above

Action #2 - propose immediate visit to site, preferably w/ LPC + personnel. Purpose: examine site, collect sludge samples if possible ~~LAKEVIEW~~

↑ Too Late - see memo dated 2/5/92



TO: DWPE/RV

DATE: 2/5/92

FROM: Eileen Cronin WPC-4

☐ Information only

SUBJECT: UNR Home Products - Site Visit

☐ Response requested

On above date I drove around the back parking lot at UNR to ~~see~~ get an idea of what work had been completed on UNR lagoon closure. Entire property north of both factories has been graded flat - evidence of cultivation - north east ~~corner~~ section had a row of stakes, purpose not apparent. Conclusion: lagoons have been bulldozed.

Spoke with David Trowbridge, Sewer Supt for City of Paris on 2/18. He said the plant staff had sampled the lagoon discharge to the POTW throughout the pumping period and had not detected any objectionable ~~to~~ contaminant levels. He said they were careful not to let them send any sludge to the plant as specified in the DWPE permit. Also, Paris WWTF conducted biomonitoring during this time with no ill effects noted. He said lagoons were drained during summer months, and berms were bulldozed late summer or early fall (more specific info available from ^wplant POTW files if needed).

Lab Sheet Color:

IEPA - DWPC - FOS - LAB SHEET

Field ID No.: 1

09-Funding Code: W P O 6 10-Agency Routing: C P 12-File Code: S T R M 13-Sample Type: S15-Reporting: B 16-DID: Basin _____ County _____ Plant _____ 17-Sampling Program: M 618-Facility/Sample Pt: BOATMAN'S CREEK - PARIS19-Begin 9 2 0 3 20-Begin 1 5 5 0
Date: Y Y M M D D H H M M

23-Instructions

to Lab: _____

21-Collected by: E M C 22-Transported by: E M C (24 hr. clock)

Composite Sample

Ending Date: 5 2 9 F 0

Y Y M M D D

Ending Time: 5 2 9 F 0H H M M
(24-hr. clock)03-Lab Parameter Group: EFFOBAdditional
Lab Parameters

Field

Parameters

Results

TOC

501FO

Air Temp (°C)

Sulfides

502FO

Water Temp (°C)

Cyanide

504FO

Dissolved O₂

Phenols

503FO

Conductance

500FO

pH

Comments & Unusual Conditions &
Severity: (If applicable, Stamp-
"No Visible Problem This Visit")Remarks: NW of former location of UMR Home Products WWTreatment lagoons

Sampling Techniques:

Grab from E bank south
of tracks

Ma To:

27-Received By: _____ Date: _____

Y Y M M D D

Received by: _____ Date: _____

Y Y M M D D

Circle One: Effluent Stream Specials:Influent Process Flows WWTP
Sludge Cooling Water Other

Program: _____

NPDES No: _____

Receiving Stream Name: _____

Receiving Stream Conditions (velocity, etc):

V. Slow; clear; heavy bottom
deposits from topsoil erosion

Effluent Conditions: _____

Weather Conditions: overcast; 28°F;
recent snow melt

FOR LABORATORY USE ONLY

LAB ID NO.

8203343Sample Received By: pdDate Received: WED 13 1992Time Received: 9 AM PM

Lab Section: _____

Supervisor: JUN 12 1992

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY

SAMPLE NUMBER : B203343
 SAMPLING POINT DESC. : BOATMAN'S CREEK-PARIS

SUBMITTING SOURCE # : SITE # :
 DATE COLLECTED : 920312 TIME COLLECTED : 1550 SAMPLING PROGRAM : M6

COLLECTED BY : EMC DELIVERED BY : EMC

COMMENTS :

FUNDING CODE : WPD6 AGENCY ROUTING : CP UNIT CODE :
 SAM TYPE CODE : STRM SAMPLE PURPOSE CODE : S REPORTING INDICATOR : P

DATE RECEIVED : 920313 TIME RECEIVED : 0900 RECEIVED BY : PMD
 OBSERVATIONS : TRIP SL SAM# :
 SUPERVISORS INITIALS : RPF NOTE : K = LESS THAN VALUE

P00403 PH-LABORATORY	UNITS : 7.9	P00610 AMMONIA-N/TOTAL	MG/L : 0.26
P32730 PHENOLS/TOTAL	UG/L : 20K	P00720 CYANIDE/TOTAL	MG/L : 5MM
P00310 BOD 5DAY	MG/L : 1	P00630 CARBON/T-ORG(TOC)	MG/L : 6
P00530 SOLIDS/TOT.SUS.	MG/L : 3	P00745 SULFIDE/TOTAL	MG/L : 0.02K
P71900 MERCURY/TOTAL	UG/L : 0.05K	P00916 CALCIUM/TOTAL	MG/L : 120
P00927 MAGNESIUM/TOTAL	MG/L : 45.	P00920 SODIUM/TOTAL	MG/L : 110
P00937 POTASSIUM/TOTAL	MG/L : 1.7	P01105 ALUMINUM/TOTAL	UG/L : 210
P01007 BARIUM/TOTAL	UG/L : 35	P01022 BORON/TOTAL	UG/L : 130
P01012 BERYLLIUM/TOTAL	UG/L : 1K	P01027 CADMIUM/TOTAL	UG/L : 5K
P01034 CHROMIUM/TOTAL	UG/L : 5K	P01042 COPPER/TOTAL	UG/L : 5K
P01037 COBALT/TOTAL	UG/L : 7K	P01045 IRON/TOTAL	UG/L : 510
P01051 LEAD/TOTAL	UG/L : 50K	P01055 MANGANESE/TOTAL	UG/L : 220
P01067 NICKEL/TOTAL	UG/L : 16	P01077 SILVER/TOTAL	UG/L : 5K
P01082 STRONTIUM/TOTAL	UG/L : 240	P01087 VANADIUM/TOTAL	UG/L : 5K
P01092 ZINC/TOTAL	UG/L : 120	P00200 HARDNESS CALC.	MG/L : 4770



DATE: March 18, 1992

FROM: Bob Carsons, DLPC/RPMS

FROM: Eileen Cronin, WPC - 4 *EC*

SUBJECT: UNR Home Products, Paris (Edgar Co.)
Low-pH Discharges to WWTF Lagoons

I reviewed our file on this facility and found no documentation that any materials with pH <2 were discharged to the now-obiterated wastewater treatment lagoons. However, there is a possibility that they received wastes with pH at or near this level, the source being H₂SO₄ pickling process wastewater batch-dumped to the lagoons. Attached is summary of dates and contents of documents that seemed to be relevant; let me know if you need any more information.

EC:jp3232p

Attachment

cc: DWPC/RU

Summary of Information from Region 4 File on UNR Home Products

(11/7/66) Letter from City Consultants Warren and Van Praag mentions "...periodic (3-4 month interval) emptying of pickling room rinse, acid and cleaner tanks will add large concentrations of caustic, acid, and borax" to the treatment lagoons.

(3/28/67) Inspection memo, quoting plant manager, states pickling liquor is to be trucked out by scavenger and not dumped in lagoons.

(12/20/73) Application for original Agency operating permit indicates lagoon influent will have a pH of 3.0.

(5/16/74) Inspection memo indicates rinse water from pickling/electroplating line is tributary to lagoons.

(6/24/81) USEPA in Chicago received a hotline complaint that H_2SO_4 was being discharged to the lagoons. This allegation was never substantiated, and apparently was discounted because the facility was in labor talks at the time.

(3/20/84) Telephone memo documenting call from Jogesh Sheth, WPC/Permits. Wastewater operator exam taken by UNR employee Monty Raley states that pH of lagoons' contents was 2.4 and 2.6, and waste contained heavy metals.

(4/16/85) Telephone memo documenting call from William Weber, UNR Plant Manager. Indicates sludge has been trucked to Thomas Landfill in Danville twice per year; owner now wants UNR to sample sludge and get Agency "approval". Call was referred to Dave Jansen/DLPC; review of LPC Region files for Thomas Landfill did not turn up any special waste permits or other evidence that additional sludge was disposed there.

(5/30/89) Letter informing IEPA of permanent shut-down of UNR plant.



April 21, 1992

Re: UNR Home Products, Paris, IL
Wastewater Treatment Lagoon Closure
IEPA/DWPC Permit 1991-HB-2463

Midwest CATV
Attn: Terry French
405 N. Earl Avenue
Lafayette, IN 47904

Dear Mr. French:

It has come to the attention of this office that closure of the UNR Wastewater Treatment Lagoons was completed during the second half of 1991. Permit 1991-HB-2463 was issued by this Agency on February 26, 1991 authorizing discharge of 100,000 gallons per day of lagoon wastewater to the City of Paris Wastewater Treatment Facility. Special Condition 3 of this Permit states:

All sludges and other wastes generated on site shall be disposed of at a site and in a manner acceptable to the Agency.

The lagoon closure may also be subject to regulations of the Illinois Pollution Control Board, including 35 Illinois Administrative Code, Subtitle G: Land Pollution.

Pursuant to Special Condition 3 of Permit 1991-HB-2463, we request that you submit a description of the disposal of the wastewater sludge contained in the lagoons at closure. Please include the following information:

UNR Home Products, Paris, IL
Wastewater Treatment Lagoon Closure
IEPA/DWPC Permit 1991-HB-2463
April 21, 1992

Page 2

1. Date disposal commenced.
2. Location of disposal.
3. Disposal practices employed.
4. Volume of sludge disposed.
5. Explanation of how the volume of sludge disposed was calculated.
6. Results of any soil analyses, sludge analyses, and waste characterizations performed during the disposal process.
7. Any provisions for ongoing monitoring of groundwater and/or surface waters at or near the former location of the lagoons.

Please submit this information in writing within 30 days of receipt of this letter. If you have any questions, please contact Ms. Eileen Cronin of my staff at (217) 333-8361.

Very truly yours,

ENVIRONMENTAL PROTECTION AGENCY



Joseph A. Koronkowski, P.E.
Manager, Champaign Region
Bureau of Water
Division of Water Pollution Control

JK:EC:jp3289p

cc: DLPC/Champaign, Attn: Rich Gerard
DWPC/RU ✓



DATE: February 27, 1992

TO: See Distribution List

FROM: Eileen Cronin, WPC-4 *ENC*

SUBJECT: UNR Home Products, Paris (Edgar Co.)
Closure of Wastewater Treatment Lagoons

Background:

The UNR Home Products wastewater lagoons provided settling and pH equalization for porcelain enamelling wastewater (and probably waste pickle liquor on occasion as well). The lagoons were used from approximately 1968 to 1988. There was no permitted point source discharge from the lagoons, as the wastewater was either recirculated back to the process stream or discharged to a sewer tributary to the City of Paris WWTF, depending on operational needs. However, Region 4 files document two occasions when the lagoons' contents either leached, leaked or overflowed to surrounding land. These incidents were viewed as being fairly serious at the time because the UNR property drains into a small stream commonly known as Boatman's Creek. This creek is eventually tributary to the West Paris Lake, which in turn feeds the East Lake, source of the City's public water supply. In a third incident involving hydraulic fluid spilled/dumped from drums stored at the plant site, it came to light that there was a beehive grate in a grassed waterway that crossed the UNR property. Details are sketchy, but it is known that the beehive grate was connected to a field tile that discharged directly to Boatman's Creek. The small amount of material that was spilled in this incident entered the creek via this tile (see Attachment A).

UNR Home Products' Paris Plant ceased operations about 1989. One building is now being used by Midwest CATV, a subsidiary of UNR, but the parent company apparently hopes to sell the property eventually. According to reports submitted to DLPC by the consulting firm hired by Midwest CATV, the industrial wastewater sludge in the lagoons contained heavy metals and other contaminants, though purportedly none at levels of regulatory concern (based on TCLP analyses). Midwest CATV declined to enter the DLPC voluntary closure program, choosing instead to pump the wastewater to the Paris WWTF (DWPC Permit 1991-HB-2463) and then bulldoze the lagoons and the sludge they contained. This work was apparently completed late summer or early fall of 1991.

Current Situation/Proposed Action:

As far as I know there are no post-closure monitoring provisions to ensure that the site is as innocuous as its owner claims it is. While they were in use, the pH of the lagoons' contents was as low as 2.2 and I wonder if there is any residual acidity in the buried sludge and what effect this would have on possible transport of the metals known to be in it. Also, I wonder if the old tile to Boatman's Creek is still in place, and if there are any others on the site. Another thing to keep in mind is that the lagoons were built in the late 1960's under a Sanitary Water Board permit. As a result, there doesn't seem to have been very strict limits on the permeability of the materials used to construct the berms.

I propose sending a letter (Attachment B) to the property owners requesting that they provide information on the lagoon's closure and disposition of the wastewater treatment sludge. The letter would be based on Special Condition 3 of Permit 1991-HB-2463 (see Attachment C). Per conversations with DLPC personnel, Section 815 of Subtitle G may be applicable at this site. If so, it would seem that the site's owners are responsible for at least some post-closure monitoring.

I would appreciate any comments/suggestions anyone may have on this subject, particularly the proposed letter and the applicability of Section 815 to this case. If you have any questions you can call me at (217) 244-3786.

Attachments A - Spill into Boatman's Creek - 1981
B - Proposed Letter to Midwest CATV (Draft)
C - DWPC Permit 1991-HB-2463

EC:dr0069r

cc: Rich Gerard, DLPC/FOS-4
Greg Good, DWPC/Planning
Tim Kluge, DWPC/Permits
Rob Layman, Enforcement
Brian Martin, DLPC/RPMS
DWPC/Records Unit ✓

ATTACHMENT A

f.l.g.

JA

MAY 5 1981

EDGAR COUNTY - (Paris) - UNARCO
Citizen Complaint

William E. Weber
Vice-President Industrial Relations
UNARCO
Route 133 West
P.O. Box 429
Paris, IL 61944

Dear Mr. Weber:

On March 3, 1981, John Applegate representing this Agency contacted you while responding to a citizen complaint which alleged that your Company discharged polluttional material on February 27, 1981, which entered Boatsmans Creek which is a tributary to Sugar Creek. The complaint further alleged that this material turned the stream a milky white color and produced a slight solvent-like odor. Our representative's investigation determined the source of this material to be an area on the northwest side of your property which is used as a storage facility for barrels of waste hydraulic oil and drawing lubricant. The discharge resulted in violations of Illinois Pollution Control Board Rules and Regulations, Chapter 3: Water Pollution, Section 403 and 203(a).

We request a written response within ten days of receipt of this letter outlining the reason for the discharge described above as well as an indication of the steps you have initiated to prevent any further recurrence. If you have any questions, please contact Mr. Applegate of this office.

Very truly yours,

ENVIRONMENTAL PROTECTION AGENCY

K. L. Baumann

K. L. Baumann
Manager, Region 4
Division of Water Pollution Control

JWA:bh

cc: - DWPC/FOS & RU
- DLPC - Attn: Monte Nienkerk

After these discussions, Mr. Weber and Mr. Burns gave us a tour of the facility and guided us to where the barrels were stored. These barrels were stored out on the northwest side of the plant. There were no dikes or berms around the area and it appears that there is no provision to safeguard any type of spill. There is a direct ditch from the area where the barrels are stored to the tile grate. According to Mr. Burns, since this spill happened, they have taken steps to minimize the continuing effects as they have cleaned out the ditch from the barrels to the tile removing most of the pooled material and putting this back into the barrels to be pumped out at a later date. He also said that he has instructed his crew not to do this type of thing in the future. He believed that this was a highly unusual occurrence due to the extremely cold weather.

From my observations and the report from Conservation Officer Foley, it appears that the severity of this situation was minimal in that it did not kill any fish nor cause any other significant damage. UNARCO did, however, violate Water Pollution Control Regulations in that the discharge violated Rule 403 of Chapter 3: Water Pollution. Included in this report is a map of the area, photographs and industrial chemical company technical report.

JWA:bh

cc: - Region 4 Files
- DLPC - Attn: M. Nienkerk



D R A F T

Re: UNR Home Products, Paris, IL
Wastewater Treatment Lagoon Closure
IEPA/DWPC Permit 1991-HB-2463

Midwest CATV
Attn: Terry French
405 N. Earl Avenue
Lafayette, IN 47904

Dear Mr. French:

It has come to the attention of this office that closure of the UNR Wastewater Treatment Lagoons was completed during the second half of 1991. Permit 1991-HB-2463 was issued by this Agency on February 26, 1991 authorizing discharge of 100,000 gallons per day of lagoon wastewater to the City of Paris Wastewater Treatment Facility. Special Condition 3 of this Permit states:

All sludges and other wastes generated on site shall be disposed of at a site and in a manner acceptable to the Agency.

Pursuant to this Special Condition, we request that you submit a description of the disposal of the industrial wastewater sludge contained in the lagoons at closure. Please include the following information:

1. Date disposal commenced.
2. Location of disposal.
3. Disposal practices employed.
4. Volume of sludge disposed.
5. Explanation of how the volume of sludge disposed was calculated.
6. Results of any soil or sludge analyses performed during the disposal process.
7. Any provisions for ongoing monitoring of groundwater and/or surface waters at or near the former location of the lagoons.

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY
WATER POLLUTION CONTROL PERMIT

LOG NUMBERS: 2463-91

PERMIT NO.: 1991-HB-2463

FINAL PLANS, SPECIFICATIONS, APPLICATION
AND SUPPORTING DOCUMENTS

DATE ISSUED: February 26, 1991

PREPARED BY: Dave Schmidt of Memphis Environmental Center, Inc.

SUBJECT: PARIS -- MIDWEST CATV, DIVISION OF UNR, INC. -- Temporary Sewer Connection
-- Tributary to the City of Paris POTW South Plant

PERMITTEE TO CONSTRUCT, OWN AND OPERATE
Midwest CATV, Division of UNR, Inc.
State Road, 133 West
Paris, Illinois 61944

Permit is hereby granted to the above designated permittee to construct water pollution control facilities described as follows:

Temporary sewer connection to convey a maximum 100,000 gpd of lagoon waste waters tributary to the City of Paris POTW (South Plant).

This Permit is issued subject to the following Special Condition(s). If such Special Condition(s) require(s) additional or revised facilities, satisfactory engineering plan documents must be submitted to this Agency for review and approval for issuance of a Supplement Permit.

SPECIAL CONDITION 1: The issuance of this permit does not relieve the permittee of the responsibility of complying with 35 Ill. Adm. Code, Part 307 and/or the General Pretreatment Regulations (40 CFR 403) and any guidelines developed pursuant to Section 301, 306, or 307 of the Federal Clean Water Act of 1977.

SPECIAL CONDITION 2: The issuance of this permit does not relieve the permittee of the responsibility of complying with any limitations and provisions imposed by the City of Paris.

SPECIAL CONDITION 3: All sludges and other wastes generated on site shall be disposed of at a site and in a manner acceptable to the Agency.

SPECIAL CONDITION 4: Drawdown of the lagoons shall be performed during a time period when freezing of the temporary lines do not occur.

SPECIAL CONDITION 5: The temporary sewer connection shall be dismantled when the project is complete.

THE STANDARD CONDITIONS OF ISSUANCE INDICATED ON THE REVERSE SIDE MUST BE COMPLIED WITH IN FULL. READ ALL CONDITIONS CAREFULLY.

TGM:REP/mls/0507q/11
cc: EPA - Region IV
Memphis Environmental Center, Inc.
Records
Binds
City of Paris
Terry French
Permits

DIVISION OF WATER POLLUTION CONTROL

Thomas G. McSwiggin
Thomas G. McSwiggin, P.E.
Manager, Permit Section

to
EC

TELEPHONE MEMO

Field Operation Section - Region 4

File: Edgar Co.

For: UNARCO

Date: 5/7/92

Time: _____

From: Dave Schmidt

of Memphis Environmental Center Phone: (901) 345-1788

Called ☒ Return Call ☐ Will Call Back ☐ We Called ☐

Subject: Sludge Disposal

Summary of Conversation: DS called re Agency letter
requesting info about the disposal of sludge
from UNARCO's lagoon that was emptied
+ filled in. The sludge was fixed ^(stabilized) in place
w/ cement before the lagoon was filled in.
The sludge had been analyzed before this
was done so that there would be no problems.
DS to respond to letter and to forward
sludge analyses results.

Action Required: _____

Action Taken: _____

Receiver initial Joe Koronkowski

Action initial _____

ACTION DATE _____



DATE: July 14, 1992

TO: See Distribution List

FROM: Eileen Cronin, WPC-Champaign *ENC*

SUBJECT: UNR/Paris (Edgar Co.)
Review of Response Explaining Closure of Wastewater Treatment Lagoons

UNR operated three wastewater treatment lagoons at its porcelainization plant in Paris from the late 60's until the plant ceased operation about 1989. In 1991 the lagoons were closed by first draining the wastewater they contained to the City of Paris WWTF, then bulldozing the lagoons. I expressed the following reservations about this in a memo dated 2/27/92:

- the buried sludge would be expected to have a high metals content;
- when in operation the industrial lagoons had a low pH (<3);
- the lagoons were constructed under a Sanitary Water Board permit that didn't establish any maximum permeabilities for the materials used;
- site drainage enters Boatman's Creek, which is ultimately tributary to the Paris public water supply. [Also, I found out later that there are at least two private wells nearby (one <1 mile, one <1.5 miles away)].

A letter requesting more information about the lagoon closure was sent to Midwest CATV, a subsidiary of UNR, on 4/21/92. The following is a review of the response, which was received 5/28/92.

Review of Report

The cover letter from Memphis Environmental Center (MEC), UNR's consulting engineers, says that the lagoons were drained to the POTW from 4/5/91 to 6/6/91. Demolition of the lagoons began 5/8/91. Sludge in the sanitary lagoon was buried in place. Sludge from the Stage 1 industrial lagoon was drained to the Stage 2 lagoon; the sludge was then removed from the Stage 2 lagoon, mixed with Poz-0-Teck, allowed to dry, and returned to the lagoon. Finally, the berms were pushed in and extra fill added as necessary. The quantity of sludge involved was estimated by MEC to be 8,470 cy.

One thing to note is that the analyses of sludge from the "sanitary" lagoon don't look very different from the two "industrial" lagoons. UNR (then known as UNARCO Industries) started discharging its domestic wastewater to the City sewers in 1973 and there's no telling what the sanitary lagoon was used for after that.

The closure plan implemented at UNR was based on an investigation conducted by MEC during May 1990. Samples were collected of soils (surface and subsurface), groundwater, surface water, and the lagoons' contents (wastewater and sludge). Testing was based on TCLP analyses as provided in 40 CFR 260. My notes and comments on the report and lab data are attached; generally speaking, my impressions were:

- a. the sampling conducted was not very extensive;
- b. in many cases it's difficult to correlate a particular sampled location as shown in Figures 1, 2 and 7 with specific lab results in Appendix A;
- c. there seems to have been some problems with QA, e.g., the report mentions silver in a system blank, chloroform in a trip blank, silvex in a rinsate blank, and "matrix difficulties" which raise the limit of detection for some samples. The report states that these problems don't invalidate the overall testing results, which may or may not be true.

The Site Investigation Report concludes with the following findings:

- "No exceedance of any regulatory level established for the [TCLP] analyses was observed for any parameter."
- "No qualification of the data invalidated sample analytical results."
- "...the present study confirms that no migration [of metals contained in soils] is likely to occur."
- "...no apparent contamination exists within the lagoon sediments or ground water which would require further investigations or remedial activities at the site."
- "...there exist no requirements for the removal or disposal of any media on the site with the exception of discharge criteria for industrial lagoon surface water...[discharged to the City sewers]."

Assessment of Situation

The author(s) of the Site Investigation Report concluded that UNR's Paris property is not contaminated with hazardous materials to such an extent that remediation is required. The sampling program and TCLP analyses submitted in support of this conclusion are not very impressive. Nevertheless, even accepting MEC's conclusions at face value, I still don't believe that burying the lagoon sludge on site was proper.

The sludge in UNR's wastewater treatment lagoons was by definition a special waste. The company had the option of removing the sludge and transporting it to a special waste landfill, which undoubtedly would have been expensive. The company chose not to do this, effectively constructing its own private special waste landfill at the plant site. This may fall under the category of "on-site disposal" pursuant to Section 21(d) of the Act, in which case no permit was required. However, it seems 35 Ill. Adm. Code 815 ("Procedural Requirements for All Landfills Exempt from Permits") may be applicable here. This section became effective 9/18/90 and requires submittal of much of the same reporting and closure documents expected of permitted landfills.

Another industrial facility (Quantum Chemical in Tuscola) had disposed of waste materials, including wastewater treatment lagoon sludge, on company property for many years under the belief that this constituted on-site disposal. However, within the past couple of years it was determined that these activities were not properly exempted from permitting under 21(d); my understanding is that the quantities involved were deemed to be larger than what was intended to be exempted under the Act. (Considering that the disposal activities included creating a gypsum pile that supposedly is now the highest point in Douglas County, this determination is understandable.) Anyway, if there is some quantifiable limiting volume for exemption under 21(d), perhaps this too should be investigated with respect to UNR/Paris.

It's debatable whether this site poses a threat to groundwater and/or the City of Paris public water supply; it seems unlikely, but it would be preferable to have more sampling data than what was included in MEC's report before concluding the site is innocuous. However, even assuming the closure is reasonably safe, it sets a very bad precedent for how the Agency deals with other industries closing wastewater treatment lagoons. For instance, Marathon Oil Refinery in Robinson (Crawford Co.) is in the process of closing out several large earthen impoundments currently used for wastewater treatment. Reportedly Marathon is claiming that, since the treatment plant was built and operated under DWPC permits, they want to 'close the impoundments under WPC rules' instead of Subtitle G. Exactly what "WPC rules" they might be referring to is unclear, but it appears that the company is trying to avoid the closure requirements and post-closure monitoring that would be required under Subtitle G. In this

particular instance, Marathon may actually end up having to close these units under RCRA, in which case the question would be irrelevant. But, if the closure of the UNR lagoons is allowed to stand as it is, how can we prevent closure of other non-hazardous industrial wastewater impoundments in the same way?

Conclusion

I am trying to find out if burial of the sludge was properly exempted from permit requirements pursuant to 21(d) of the Act and, if so, whether 35 Ill. Adm. Code 815 is applicable. Either a more thorough site investigation or some post-closure monitoring could probably be justified at the UNR site. If anyone has any comments or suggestions, please call me at (217) 244-3786. (Copies of the Site Investigation Report are available in the DWPC/Champaign files and at DLPC/RPMS. If anyone else would like a copy, call me.)

EC:jp3456p

cc: DLPC/RPMS, Attn: Jim Janssen
DLPC/FOS-Champaign, Attn: Rich Gerard
DLPC/FOS-Springfield, Attn: Karen Nelson
DLPC/Permits, Attn: Ed Bakowski
DLC, Attn: Greg Richardson
DLC, Attn: Rob Layman
DWPC/Permits, Attn: Tim Kluge
DWPC/RU

MEMPHIS ENVIRONMENTAL CENTER, INC.

VIA FAX TRANSMITTAL

2603 Corporate Avenue, Suite 100
Memphis, Tennessee 38132
Phone: (901) 345-1788 Fax: (901) 398-4719

May 27, 1992

Mr. Joseph A. Koronkowski, P.E.
Manager, Champaign Region
Illinois Environmental Protection Agency
2125 South First Street
Champaign, Illinois 61820

RECEIVED

CHAMPAIGN

MAY 28 1992

Environmental Protection Agency
State of Illinois

Re: Wastewater Treatment Lagoon Closure
UNR Home Products
Paris, Illinois
IEPA/DWPC Permit Number: 1991-HB-2463

Dear Mr. Koronkowski:

UNR Home Products (UNR) has requested Memphis Environmental Center, Inc. (MEC) to respond to your letter of April 21, 1992, to Terry French of Midwest CATV concerning the above-referenced permit. Your letter requested specific information concerning the disposition of sludges contained in the former wastewater lagoons at the Paris facility.

Your letter correctly notes that closure of the former wastewater lagoons at the Paris facility was completed during the second half of 1991. Closure activities, described more fully below, consisted essentially of draining lagoon liquids, drying and stabilizing residual solids as necessary, covering the residual solids in place and filling and grading the area. In this respect, closure proceeded as UNR had discussed in earlier meetings in late 1990 and early 1991 with the Illinois Environmental Protection Agency (IEPA) and as described in UNR's permit application, a copy of which is included as *Attachment A*.

In response to your specific information requests, MEC provides the following information:

Information Request 1: Date disposal commenced:

Disposal of liquid from the lagoons took place between April 5 and June 6, 1991. On May 8, 1991, heavy equipment began pushing in the berms of the lagoons.

Information Request 2: Location of disposal:

The sludge within the sanitary lagoon was covered in-place. The sludge within this lagoon consisted of decayed vegetation (i.e., leaves, etc.) which had fallen into the lagoon. This lagoon was surrounded by small trees and underbrush. The majority of the stage 1 and 2 lagoon sludges was mixed with Poz-O-Teck, allowed to dry and then covered in-place in the Stage 2 lagoon.

not familiar
w/ lagoon

Information Request 3: Disposal practices employed:

After dewatering to the stage 2 lagoon, the berms of the sanitary lagoon were pushed in, covering the bottom. Additional fill and topsoil from an on-site borrow area was used for final fill. The area was graded so that surface drainage would be directed to an existing ditch east of the lagoon.

Prior to closure of the stage 1 lagoon, free liquid was pumped to the sanitary sewer system. The berm between stage 1 and 2 lagoons was then cut, and the sludge from the stage 1 lagoon was allowed to flow to the stage 2 lagoon. The berms of the stage 1 lagoon were pushed in and additional fill from an area adjacent to the lagoon was used for grading.

The sludges in the stage 2 lagoon were dewatered and allowed to dry. The volume and initial consistency of this material would not allow backfill placement. A decision was therefore made to stabilize the sludge using Poz-O-Teck. As the sludge was mixed with Poz-O-Teck, it was removed from the lagoon and placed in a drying area located adjacent to, and east, of the stage 1 lagoon. The material was spread in thin layers and allowed to dry. The material was disced on a periodic basis to enhance drying. The sludge was returned to the lagoon upon completion of the drying process. Additional backfill was placed over the area, as required, and final grading was performed to allow surface water drainage to the railroad culvert. Prior to the commencement of the sludge treatment, a berm was constructed around the drying area and lagoon to prevent surface water runoff.

Information Request 4: Volume of sludge disposed:

The volume of sludge was not quantified during closure activities. The following is an estimate of the quantity of sludge with each lagoon.

Sanitary Lagoon: 150' x 450' X 1' = 67,500 cubic feet = 2,500 cubic yards
Stage 1 Lagoon: 110' x 150' X 4' = 66,000 cubic feet = 2,444 cubic yards
Stage 2 Lagoon: 170' x 280' X 2' = 95,200 cubic feet = 3,526 cubic yards

TOTAL: 8,470 cubic yards

Mr. Joseph A. Koronkowski, P.E.
May 27, 1992
Page 3

Information Request 5: Explanation of how the volume of sludge was calculated:

The volume of sludge was calculated by scaling the size of the lagoons from the aerial maps. The depths were estimated based on field observations.

Information Request 6: Results of any soil analysis, sludge analysis, and waste characterization performed during the disposal process:

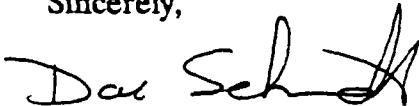
Analytical results of soil, sludge, ground water and surface water sampling conducted prior to closure have already been provided to IEPA. No additional soil or sludge analysis or waste characterization was performed during the lagoon closure process. Included in *Attachment A* and *B* are copies of the original permit application and Phase II Site Investigation Report, respectively. These documents contain results of the pre-closure sampling and analysis.

Information Request 7: Any provisions for ongoing monitoring of ground water and/or surface waters at or near the former location of the lagoons:

No additional ground water or surface water monitoring is scheduled for the future.

If you have any questions concerning this matter, please contact me.

Sincerely,



David A. Schmidt, P.E.
Environmental Project Manager

DAS/dmg/180-281A

Attachments

cc: Mr. Don Fowler - Spriggs and Hollingsworth
Mr. Jack Wursta - UNR Home Products
Mr. Ernie Barnes - UNR Home Products
Mr. Bob Colivin - Francis & Associates

I. Cover letterII. Application for WPC Permit 1991-HB-2463 authorizing draining lagoons' contents to POTW

- Schedule G indicates sludge would be left in place

- Sludge analyses

* metals, O+G, COD seem high also sulfur

Stage 1: Cd = 42.05 mg/kg

Ni = 701 mg/kg

* no analysis for Ag - this showed up in earlier samples, but may have been QA problem

* note characteristics reported for "sanitary lagoon" don't seem to correspond to domestic WW sludge

- Lagoon water analyses

	Stage 1	Stage 2	Sanitary
pH field test 5/10/90:	2.9	6.0	8.6
pH ww sample 10/24/90 (lab)	8.7	6.2	6.1

III Phase II Site Investigation Report

- 5 soil samples
- 4 ground water monitoring wells / subsurface soil samples
 - * note pH at MEC3 + MEC4 is lower (6.5 vs ~7.5) ~~than pH at MEC1 + MEC2~~
 - wells 3+4 are closer to lagoons, also ~~possible~~ - ~~possible~~ possible downgradient from lagoons?
- ~~lagoon~~ ^{sediment} ~~sludge~~ samples
- surface water samples
 - lagoon contents, drainage slough
 - * no water in "wetland" areas → no sample (this ~~was~~ old fill area)
- * Figure 7 shows 4 wetland/slough sediment samples - results are not discussed in report - why not? (SED 4, SED 5, SED 6, SED 7)

- Analytical results:

p10: "Additional analytical data generated during waste removal operations under a separate matter are also included in the report"

→ WHAT DOES THIS MEAN?

* TOV (headspace) of subsurface & surface soil samples < background

* pH lower at monitoring wells MEC3 & MEC4 than MEC1 & MEC2

* compounds detected in lagoons' sludge ~~that were not~~

- chloroform *

- arsenic ($< 3 \times \text{LOD}$)

- barium ($< 5 \times \text{LOD}$)

- cadmium ($< 2 \times \text{LOD}$)

- silver *

* ^{accuracy} ~~reliability~~ of results compromised by finding met'ls in blanks

* lagoon wastewater - compds detected

- Cd ($< 2 \times \text{LOD}$)

- selenium ($< 2 \times \text{LOD}$)

- silver * found in system blank

* ground water - compds detected

- chloroform (detected in trip blank)

- Ag (detected in system blank)

- * ground water (cont)
 - silver (detected in rinse blank)

IV Laboratory Reports

A. Soil Samples

- holding time for BNA exceeded (44 days vs 40)
- surrogate recovery problems
- 4 BNA parameters had unacceptable recoveries
- silver detected in blank

B. Water Samples (Surface waters)

- one sample analyzed for BNA caused instrumentation shutdown due to presence of "an aliphatic alcohol and possibly amine as well as amine hydrochloride". This resulted in LOD which is 1200x normal
- a second sample for BNA caused instrumentation shutdown due to presence of "large amount of surface active agent(s) (soaps)" LOD = 100x normal
- holding time for BNA exceeded (48 days vs 40)
- problems with acid surrogate recoveries due to "matrix interferences"
- silver in system blank

B. Water Samples (surface) (cont)

- holding time on pH exceeded (14 days vs 0)
- holding time for cyanide exceeded (43 days vs 14)
- holding time for sulfide exceeded (43 days vs 7)

C. Sediment (Sludge) Samples


- holding time for BNA extractibles exceeded
- holding time for pH exceeded
- holding time for cyanide exceeded
- holding time for sulfide exceeded

D. Water Samples (groundwater?)

- unacceptable recoveries for some pesticide spikes
- silver detected in system blank

SECTION 5

OMB Approval Number: 2050-0095
Approved for Use Through: 1/92

 Potential Hazardous Waste Site Preliminary Assessment Form		Identification	
		State: <u>IL</u>	CERCLIS Number: <u>ILD984403278</u>
		CERCLIS Discovery Date: <u>9/92</u>	
1. General Site Information			
Name: <u>UNR Home Products</u>		Street Address: <u>Rt. 133 West</u>	
City: <u>Paris</u>	State: <u>IL</u>	Zip Code: <u>61944</u>	County: <u>Edgar</u> Co. Code: <u>45</u> Cong. Dist: <u>19</u>
Latitude: <u>39° 30' 43.0"</u>	Longitude: <u>87° 30' 33.0"</u>	Approximate Area of Site: <u>55</u> Acres	Status of Site: <input checked="" type="checkbox"/> Active <input type="checkbox"/> Not Specified <input type="checkbox"/> Inactive <input type="checkbox"/> NA (GW plume, etc.)
2. Owner/Operator Information			
Owner: <u>UNR Industries</u>		Operator: <u>Midwest Cable TV</u> , ^{Subsidiary of UNR Home Prods}	
Street Address: <u>332 South Michigan Avenue</u>		Street Address: <u>Rt 133 West</u>	
City: <u>Chicago</u>		City: <u>Paris</u>	
State: <u>IL</u>	Zip Code: _____	Telephone: <u>(312) 341-1234</u>	State: <u>IL</u> Zip Code: <u>61944</u> Telephone: <u>(217) 465-2404</u>
Type of Ownership: <input checked="" type="checkbox"/> Private <input type="checkbox"/> Federal Agency Name: _____ <input type="checkbox"/> State <input type="checkbox"/> Indian		How Initially Identified: <input type="checkbox"/> Citizen Complaint <input type="checkbox"/> PA Petition <input checked="" type="checkbox"/> State/Local Program <input type="checkbox"/> RCRA/CERCLA Notification	
<input type="checkbox"/> County <input type="checkbox"/> Municipal <input type="checkbox"/> Not Specified <input type="checkbox"/> Other _____		<input type="checkbox"/> Federal Program <input type="checkbox"/> Incidental <input type="checkbox"/> Not Specified <input type="checkbox"/> Other _____	
3. Site Evaluator Information			
Name of Evaluator: <u>Kimberlee A. Hubbert</u>		Agency/Organization: <u>EPA/RPMS/PASI</u>	
Date Prepared: <u>JUNE 18, 1993</u>			
Street Address: <u>2200 Churchill Road</u>		City: <u>Springfield</u> State: <u>IL</u>	
Name of EPA or State Agency Contact: <u>Tom Crause</u>		Street Address: <u>2200 Churchill Road</u>	
City: <u>Springfield</u>		State: <u>IL</u> Telephone: <u>(217) 782-6760</u>	
4. Site Disposition (for EPA use only)			
Emergency Response/Removal Assessment Recommendation: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Date: <u>January, 1993</u>		CERCLIS Recommendation: <input checked="" type="checkbox"/> Higher Priority SI <input type="checkbox"/> Lower Priority SI <input type="checkbox"/> NFRAP <input type="checkbox"/> RCRA <input type="checkbox"/> Other _____ Date: _____	
Signature: _____ Name (typed): _____ Position: _____			



Potential Hazardous Waste Site
Preliminary Assessment Form - Page 2 of 4

CERCLIS Number:
ILD984903278

5. General Site Characteristics

Predominant Land Uses Within 1 Mile of Site (check all that apply):

- | | | |
|---|---|---|
| <input checked="" type="checkbox"/> Industrial | <input checked="" type="checkbox"/> Agriculture | <input type="checkbox"/> DOI |
| <input checked="" type="checkbox"/> Commercial | <input type="checkbox"/> Mining | <input type="checkbox"/> Other Federal Facility |
| <input checked="" type="checkbox"/> Residential | <input type="checkbox"/> DOD | |
| <input type="checkbox"/> Forest/Fields | <input type="checkbox"/> DOE | <input checked="" type="checkbox"/> Other <u>IDOT</u> |

Site Setting:

- ☐ Urban
☒ Suburban
☐ Rural

Years of Operation:

Beginning Year 1966

Ending Year 1989

☐ Unknown

Type of Site Operations (check all that apply):

☒ Manufacturing (must check subcategory)

- | | |
|---|--|
| <input type="checkbox"/> Lumber and Wood Products | <input type="checkbox"/> Retail |
| <input type="checkbox"/> Inorganic Chemicals | <input type="checkbox"/> Recycling |
| <input checked="" type="checkbox"/> Plastic and/or Rubber Products | <input type="checkbox"/> Junk/Salvage Yard |
| <input type="checkbox"/> Paints, Varnishes | <input type="checkbox"/> Municipal Landfill |
| <input type="checkbox"/> Industrial Organic Chemicals | <input type="checkbox"/> Other Landfill |
| <input type="checkbox"/> Agricultural Chemicals | <input type="checkbox"/> DOD |
| (e.g., pesticides, fertilizers) | <input type="checkbox"/> DOE |
| <input type="checkbox"/> Miscellaneous Chemical Products | <input type="checkbox"/> DOI |
| (e.g., adhesives, explosives, ink) | <input checked="" type="checkbox"/> RCRA |
| <input type="checkbox"/> Primary Metals | <input type="checkbox"/> Treatment, Storage, or Disposal |
| <input checked="" type="checkbox"/> Metal-Coating, Plating, Engraving | <input type="checkbox"/> Large Quantity Generator |
| <input type="checkbox"/> Metal Forging, Stamping | <input type="checkbox"/> Small Quantity Generator |
| <input type="checkbox"/> Fabricated Structural Metal Products | <input type="checkbox"/> Subtitle D |
| <input type="checkbox"/> Electronic Equipment | <input type="checkbox"/> Municipal |
| <input checked="" type="checkbox"/> Other Manufacturing — <u>Porcelainization</u> | <input type="checkbox"/> Industrial |
| <input type="checkbox"/> Mining | <input type="checkbox"/> "Converter" |
| <input type="checkbox"/> Metals | <input type="checkbox"/> "Protective Filer" |
| <input type="checkbox"/> Coal | <input checked="" type="checkbox"/> "Non- or Late Filer" |
| <input type="checkbox"/> Oil and Gas | <input type="checkbox"/> Not Specified |
| <input type="checkbox"/> Non-metallic Minerals | <input type="checkbox"/> Other _____ |

Waste Generated:

- ☒ Onsite
☐ Offsite
☐ Onsite and Offsite

Waste Deposition Authorized By:

- ☐ Present Owner
☐ Former Owner
☐ Present & Former Owner
☐ Unauthorized
☒ Unknown

Waste Accessible to the Public:

- ☒ Yes
☐ No

Distance to Nearest Dwelling,
School, or Workplace:

>20 Feet

6. Waste Characteristics Information

Source Type:
(check all that apply)

- ☐ Landfill
☒ Surface Impoundment
☐ Drums
☐ Tanks and Non-Drum Containers
☐ Chemical Waste Pile
☐ Scrap Metal or Junk Pile
☐ Tailings Pile
☐ Trash Pile (open dump)
☒ Land Treatment
☐ Contaminated Ground Water Plume
(unidentified source)
☐ Contaminated Surface Water/Sediment
(unidentified source)
☐ Contaminated Soil
☐ Other _____
☐ No Sources

Source Waste Quantity:
(include units)

10 ACRES

Tier *

A

General Types of Waste (check all that apply)

- | | |
|---|---|
| <input checked="" type="checkbox"/> Metals | <input type="checkbox"/> Pesticides/Herbicides |
| <input checked="" type="checkbox"/> Organics | <input checked="" type="checkbox"/> Acids/Bases |
| <input checked="" type="checkbox"/> Inorganics | <input type="checkbox"/> Oily Waste |
| <input checked="" type="checkbox"/> Solvents | <input type="checkbox"/> Municipal Waste |
| <input checked="" type="checkbox"/> Paints/Pigments | <input type="checkbox"/> Mining Waste |
| <input type="checkbox"/> Laboratory/Hospital Waste | <input type="checkbox"/> Explosives |
| <input type="checkbox"/> Radioactive Waste | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Construction/Demolition
Waste | |

Physical State of Waste as Deposited (check all that
apply):

- ☒ Solid ☐ Sludge ☐ Powder
☒ Liquid ☐ Gas

* C = Constituent, W = Wastestream, V = Volume, A = Area



Potential Hazardous Waste Site
Preliminary Assessment Form - Page 3 of 4

CERCLIS Number:

ILD984903278

7. Ground Water Pathway

<p>Is Ground Water Used for Drinking Water Within 4 Miles:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Type of Drinking Water Wells Within 4 Miles (check all that apply):</p> <p><input type="checkbox"/> Municipal <input checked="" type="checkbox"/> Private <input type="checkbox"/> None</p>	<p>Is There a Suspected Release to Ground Water:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Have Primary Target Drinking Water Wells Been Identified:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, Enter Primary Target Population:</p> <p><u>18</u> People</p>	<p>List Secondary Target Population Served by Ground Water Withdrawn From:</p> <table><tr><td>0 - 1/4 Mile</td><td><u>3</u></td></tr><tr><td>> 1/4 - 1/2 Mile</td><td><u>7</u></td></tr><tr><td>> 1/2 - 1 Mile</td><td><u>10</u></td></tr><tr><td>> 1 - 2 Miles</td><td><u>35</u></td></tr><tr><td>> 2 - 3 Miles</td><td><u>58</u></td></tr><tr><td>> 3 - 4 Miles</td><td><u>118</u></td></tr><tr><td>Total Within 4 Miles</td><td><u>231</u></td></tr></table>	0 - 1/4 Mile	<u>3</u>	> 1/4 - 1/2 Mile	<u>7</u>	> 1/2 - 1 Mile	<u>10</u>	> 1 - 2 Miles	<u>35</u>	> 2 - 3 Miles	<u>58</u>	> 3 - 4 Miles	<u>118</u>	Total Within 4 Miles	<u>231</u>
0 - 1/4 Mile	<u>3</u>															
> 1/4 - 1/2 Mile	<u>7</u>															
> 1/2 - 1 Mile	<u>10</u>															
> 1 - 2 Miles	<u>35</u>															
> 2 - 3 Miles	<u>58</u>															
> 3 - 4 Miles	<u>118</u>															
Total Within 4 Miles	<u>231</u>															
<p>Depth to Shallowest Aquifer:</p> <p><u>~25</u> Feet</p> <p>Karst Terrain/Aquifer Present:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>Nearest Designated Wellhead Protection Area:</p> <p><input checked="" type="checkbox"/> Underlies Site <input type="checkbox"/> > 0 - 4 Miles <input type="checkbox"/> None Within 4 Miles</p>															

8. Surface Water Pathway

<p>Type of Surface Water Draining Site and 15 Miles Downstream (check all that apply):</p> <p><input checked="" type="checkbox"/> Stream <input type="checkbox"/> River <input type="checkbox"/> Pond <input checked="" type="checkbox"/> Lake <input type="checkbox"/> Bay <input type="checkbox"/> Ocean <input type="checkbox"/> Other _____</p>	<p>Shortest Overland Distance From Any Source to Surface Water:</p> <p><u>600</u> Feet _____ Miles</p>																				
<p>Is There a Suspected Release to Surface Water:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>Site is Located in:</p> <p><input type="checkbox"/> Annual - 10 yr Floodplain <input type="checkbox"/> > 10 yr - 100 yr Floodplain <input type="checkbox"/> > 100 yr - 500 yr Floodplain <input checked="" type="checkbox"/> > 500 yr Floodplain</p>																				
<p>Drinking Water Intakes Located Along the Surface Water Migration Path:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Have Primary Target Drinking Water Intakes Been Identified:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If Yes, Enter Population Served by Primary Target Intakes:</p> <p><u>9885</u> People</p>	<p>List All Secondary Target Drinking Water Intakes:</p> <table><thead><tr><th>Name</th><th>Water Body</th><th>Flow (cfs)</th><th>Population Served</th></tr></thead><tbody><tr><td><u>Paris</u></td><td><u>Twin Lakes</u></td><td></td><td><u>9885</u></td></tr><tr><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr><tr><td>_____</td><td>_____</td><td>_____</td><td>_____</td></tr><tr><td colspan="3">Total within 15 Miles</td><td><u>9885</u></td></tr></tbody></table>	Name	Water Body	Flow (cfs)	Population Served	<u>Paris</u>	<u>Twin Lakes</u>		<u>9885</u>	_____	_____	_____	_____	_____	_____	_____	_____	Total within 15 Miles			<u>9885</u>
Name	Water Body	Flow (cfs)	Population Served																		
<u>Paris</u>	<u>Twin Lakes</u>		<u>9885</u>																		
_____	_____	_____	_____																		
_____	_____	_____	_____																		
Total within 15 Miles			<u>9885</u>																		
<p>Fisheries Located Along the Surface Water Migration Path:</p> <p><input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>Have Primary Target Fisheries Been Identified:</p> <p><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>	<p>List All Secondary Target Fisheries:</p> <table><thead><tr><th>Water Body/Fishery Name</th><th>Flow (cfs)</th></tr></thead><tbody><tr><td>_____</td><td>_____</td></tr><tr><td>_____</td><td>_____</td></tr><tr><td>_____</td><td>_____</td></tr><tr><td>_____</td><td>_____</td></tr></tbody></table>	Water Body/Fishery Name	Flow (cfs)	_____	_____	_____	_____	_____	_____	_____	_____										
Water Body/Fishery Name	Flow (cfs)																				
_____	_____																				
_____	_____																				
_____	_____																				
_____	_____																				



Potential Hazardous Waste Site
Preliminary Assessment Form - Page 4 of 4

CERCLIS Number:

ILD984903278

8. Surface Water Pathway (continued)

Wetlands Located Along the Surface Water Migration Path:

☒ Yes
☐ No

Have Primary Target Wetlands Been Identified:

☒ Yes
☐ No

List Secondary Target Wetlands:

Water Body	Flow (cfs)	Frontage Miles
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Other Sensitive Environments Located Along the Surface Water Migration Path:

☐ Yes
☐ No

Have Primary Target Sensitive Environments Been Identified:

☐ Yes
☐ No

List Secondary Target Sensitive Environments:

Water Body	Flow (cfs)	Sensitive Environment Type
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

9. Soil Exposure Pathway

Are People Occupying Residences or Attending School or Daycare on or Within 200 Feet of Areas of Known or Suspected Contamination:

☒ Yes
☐ No

If Yes, Enter Total Resident Population:

20 People

Number of Workers Onsite:

☐ None
☒ 1 - 100
☐ 101 - 1,000
☐ > 1,000

Have Terrestrial Sensitive Environments Been Identified on or Within 200 Feet of Areas of Known or Suspected Contamination:

☐ Yes
☒ No

If Yes, List Each Terrestrial Sensitive Environment:

10. Air Pathway

Is There a Suspected Release to Air:

☒ Yes
☐ No

Enter Total Population on or Within:

Onsite	<u>5</u>
0 - 1/4 Mile	<u>374</u>
> 1/4 - 1/2 Mile	<u>903</u>
> 1/2 - 1 Mile	<u>2012</u>
> 1 - 2 Miles	<u>5033</u>
> 2 - 3 Miles	<u>2177</u>
> 3 - 4 Miles	<u>244</u>
Total Within 4 Miles	<u>10,748</u>

Wetlands Located Within 4 Miles of the Site:

☒ Yes
☐ No

Other Sensitive Environments Located Within 4 Miles of the Site:

☐ Yes
☒ No

List All Sensitive Environments Within 1/4 Mile of the Site:

Distance Sensitive Environment Type/Wetlands Area (acres)

Onsite

2 acre wetland

0 - 1/4 Mile

> 1/4 - 1/2 Mile

SECTION 6

11

City _____ County Edgar Paris Twp.
Section 2 Twp. No. 13 N Range 12 W
Location (in feet from section corner) 180 ft. S. and 1740 E. of N. W. sect. corner,
Owner Mr. Ed. Sunkel Authority Everett Sunkel, son and tenant
Contractor unknown Address xx
Date drilled over 50 yrs. ago. Elev. above sea level top of well _____
Depth 26 ft.
Log sand bottom.

Were drill cuttings saved no Where filed xxx
Size hole 3.5' dia. If reduced, where and how much no reduction
Casing record brick all the way.
Distance to water when not pumping 19.5' - now Distance to water is xx
feet after pumping at xx G. P. M. for xx hours.
Reference point for above measurements well top
Type of pump Sears Roebuck Distance to cylinder xx
Length of cylinder 3.5" x 10" Length of suction pipe below cylinder xx
Length stroke 6.5" Speed xxx
Hours used per day over Type of power electric motor
Rating of motor 1/2 H.P. Rating of pump in G. P. M. 4-5 ???????
Can following be measured: (1) Static water level yes-it was
(2) Pumping level no (3) Discharge yes
(4) Influence on other wells nothing known
Temperature of water unknown Was water sample collected no
Date xx Effect of water on meters, hot water
coils, etc. no color-taste or odor.
Date of Analysis _____ Analysis No. _____

Recorder George Thos. Coady,

Date Feb. 20, 1934.

Sp, NO₃
NH₃

City ~~here~~ Paris County Edgar

Section 236 Twp. No. 13 N Range 12 W

Location (in feet from section corner) SW $\frac{1}{4}$ of The SE $\frac{1}{4}$ of Sec 2

Owner Mr E. P. HUSTON Authority _____

Contractor _____ Address _____

Date drilled _____ Elev. above sea level top of well _____

Depth 80'

Log _____

Were drill cuttings saved _____ Where filed _____

Size hole _____ If reduced, where and how much _____

Casing record _____

Distance to water when not pumping _____ Distance to water is _____

feet after pumping at _____ G. P. M. for _____ hours.

Reference point for above measurements _____

Type of pump _____ Distance to cylinder _____

Length of cylinder _____ Length of suction pipe below cylinder _____

Length stroke _____ Speed _____

Hours used per day _____ Type of power _____

Rating of motor _____ Rating of pump in G. P. M. _____

Can following be measured: (1) Static water level _____

(2) Pumping level _____ (3) Discharge _____

(4) Influence on other wells _____

Temperature of water _____ Was water sample collected _____

Date _____ Effect of water on meters, hot water coils, etc. _____

Date of Analysis _____ Analysis No. 137528

Recorder _____

Date _____

201440

SPNH4 NO3

ILLINOIS DEPARTMENT OF PUBLIC HEALTH
WELL CONSTRUCTION REPORT

GEOLOGICAL AND WATER SURVEYS WELL RECORD

WELL NO. 1

10. Property owner W. ROUTE 133, PARIS, ILLINOIS 61954 CASE IMPLEMENT STORE Well No. #1

Address E. C. BAKER & SONS, INC. License No. 92-02

Driller 43779 Date Dec. 15, 1975

11. Permit No. 43779 Date Dec. 15, 1975

12. Water from SAND AND GRAVEL 13. County EDGAR

at depth 50.0' to 57.5' Sec. 3 1/4

14. Screen: Diam. 6" in. TWP. 13N

Length: 4' ft. Slot .010 in. 49.5' - 57.5' 12W

15. Casing and Liner Pipe

Diam. (in.) Kind and Weight From (Ft.) To (Ft.)

6" ID BLACK STEEL, 19#

.280 WALL, SCH. 40

PIPE + 2.0' - 50.0'

16. Size Hole below casing: 3 in.

17. Static level 7.7 ft. below casing top which is 2.0 ft.

above ground level. Pumping level 24.5 ft. when pumping at 5 gpm for 3 hours.

18. FORMATIONS PASSED THROUGH

THICKNESS DEPTH OF

SOIL BLACK CLAY 4' 4'

YELLOW SANDY CLAY (SOME WATER) 12' 16'

BLUE SANDY CLAY 34' 50'

SAND AND GRAVEL 2' 52'

CLAY STRIPS .5' 52.5'

SAND 5' 57.5'

PEAT

(CONTINUE ON SEPARATE SHEET IF NECESSARY)

SIGNED EARL C. BAKER JR. DATE 4-2-76

1. Type of Well

a. Dug Bored Hole Diam. in. Depth 57.5 ft.

b. Driven Drive Pipe Diam. in. Depth ft.

c. Drilled X Finished in Drift X In Rock

d. Grout: Tubular X Gravel Packed

(KIND)	FROM (Ft.)	TO (Ft.)

2. Distance to Nearest:

Building Ft. Seepage Tile Field OK

Cess Pool OK Sewer (non Cast iron) OK

Privy OK Barnyard OK

Septic Tank OK Manure Pile OK

Leaching Pit OK

3. Is water from this well to be used for human consumption?

Yes X No APRIL 2, 1976

4. Date well completed

5. Permanent Pump Installed? Yes No X

Manufacturer Type

Capacity gpm. Depth of setting ft.

6. Well Top Sealed? Yes No X

7. Pitless Adaptor Installed? Yes No X

8. Well Disinfected? Yes No X

9. Water Sample Submitted? Yes No X

REMARKS:

57 p.m. for 1 hr

City _____ County Edgar Paris Twp.

Section 3. / a Twp. No. 13 N Range 12 W

Location (in feet from section corner) 2310 ft. N. and 2640 ft. E. of S.W. corner.

Owner Mrs. John Bercaw Authority Law. Bercaw-tenant.

Contractor unknown Address xx

Date drilled over 40 yrs. ago ????? Elev. above sea level top of well _____

Depth 17 ft.

Log nothing known for sure

Were drill cuttings saved no Where filed xxx

Size hole 3' dia. If reduced, where and how much no reduction

Casing record brick

Distance to water when not pumping 9 ft. now Distance to water is xx

feet after pumping at xx G. P. M. for xx hours.

Reference point for above measurements well top

Type of pump hand Distance to cylinder xx

Length of cylinder xx Length of suction pipe below cylinder xx

Length stroke xx Speed xxx

Hours used per day over Type of power hand

Rating of motor xxx Rating of pump in G. P. M. 4 ?????

Can following be measured: (1) Static water level yes

(2) Pumping level no (3) Discharge yes

(4) Influence on other wells nothing known

Temperature of water unknown Was water sample collected no

Date xxxx Effect of water on meters, hot water

coils, etc. nothing known

Date of Analysis _____ Analysis No. _____

Recorder George Thos. Coady,

Date Feb. 21, 1934

City _____ County Edgar Paris Twp.
 Section 10 Twp. No. 13 N. Range 12 W.
 Location (in feet from section corner) 1720 ft N. & 660 ft W. of S.E. Corner.
 Owner Mrs. Ethel Davis Henson Authority Mrs. Ethel Davis Henson
 Contractor unknown Address ---
 Date drilled + 80 yrs ago Elev. above sea level top of well _____
 Depth 30 ft.
 Log Has never been dry.
?? Probably a sand vein in bottom ??
 Were drill cuttings saved no Where filed ---
 Size hole 3.5-4" dia. If reduced, where and how much none known.
 Casing record brick
 Distance to water when not pumping 20 ft in dry weather
10 ft (average) Distance to water is unknown
 feet after pumping at --- G. P. M. for --- hours.
 Reference point for above measurements ground surface
 Type of pump hand Distance to cylinder ---
 Length of cylinder 6" Length of suction pipe below cylinder ---
 Length stroke --- Speed ---
^{amount} Hours used per day 16 - cows
10 - other stock Type of power hand & wind mill
threshed from it
 Rating of motor --- Rating of pump in G. P. M. 4-5 ???
 Can following be measured: (1) Static water level yes
 (2) Pumping level no (3) Discharge yes
 (4) Influence on other wells nothing known
 Temperature of water --- Was water sample collected no
 Date _____ Effect of water on meters, hot water
 coils, etc. nothing unusual - used only for stock
 Date of Analysis _____ Analysis No. _____
 Recorder George Thos Leady
 Date March 2, 1934

City _____ County Edgar Paris Twp. _____

Section 10 Twp. No. 13 N Range 12 W

Location (in feet from section corner) 2240 ft. S and 400 ft. W . of N.E. corner of
section.

Owner Mrs. Emma Hinds Authority Mrs. Jonathona Hinds

Contractor unknown Address xxxx

Date drilled 1904 Elev. above sea level top of well _____

Depth 126 feet

Log nothing known Has never been dry.

Were drill cuttings saved no Where filed xxx

Size hole 3" If reduced, where and how much no reduction known

Casing record 3" casing

Distance to water when not pumping unknown Distance to water is isssssss

feet after pumping at xxxxx G. P. M. for _____ hours.

Reference point for above measurements xxxx

Type of pump hand Distance to cylinder 6 ft. ??

Length of cylinder xxxx Length of suction pipe below cylinder xxxx

Length stroke + Speed +

^{amount}
~~Hours~~ used per day 100 hd. of Cattle Type of power Wind mill

Rating of motor + Rating of pump in G. P. M. 5??

Can following be measured: (1) Static water level no

(2) Pumping level no (3) Discharge no

(4) Influence on other wells nothing known.

Temperature of water + Was water sample collected no

Date + Effect of water on meters, hot water

coils, etc. yellow, lime deposit - no taste or odor

Date of Analysis _____ Analysis No. _____

was analyzed by State in 1904

Recorder George Thor. Loady

Date Feb. 10, 1934.

City xxxxxx County Edgar Paris, Twp.
Section 4 Twp. No. 13 N Range 12 W
Location (in feet from section corner) 168 ft. N. and 240 ft. W. of S.E. corner of
Owner J. W. Church Authority N.E. Quarter
for old part-unknown Mr. J. W. Church
Contractor for new part-J. Sears Address Paris, Illinois
date of dug part unknown
Date drilled drilled part-1933 Elev. above sea level top of well _____
Depth dug 37 ft. and bored 20 ft. more
Log first 37 ft. unknown-then in bored part, blue clay into a gravel vein.

Were drill cuttings saved no Where filed xxxx
Size hole over If reduced, where and how much other side
Casing record none used
6 ft in wet seasons
Distance to water when not pumping 12 ft in dry seasons Distance to water is unknown
feet after pumping at nothing known G. P. M. for xx hours.
Reference point for above measurements ground surface
Type of pump hand Distance to cylinder xx
Length of cylinder xxx Length of suction pipe below cylinder xxx
Length stroke 3" Speed xx
Hours used per day vary too much for average Type of power gas engine
Rating of motor ss Rating of pump in G. P. M. xxx
Can following be measured: (1) Static water level no
(2) Pumping level no (3) Discharge no
(4) Influence on other wells nothing known
Temperature of water unknown Was water sample collected no
Date _____ Effect of water on meters, hot water
coils, etc. nothing known
Date of Analysis _____ Analysis No. _____

Recorder George Thos. Coady

Date Jan. 8, 1934

City _____ County Edgar Paris Twp
Section 5 Twp. No. 13 N. Range 12 W.
Location (in feet from section corner) 2070 ft S. & 195 ft W. of N.E. Corner
Owner A. Sensenbrenner Authority A. Sensenbrenner - owner
Contractor Chas. M. Gallister Address Chrisman, Illinois
Date drilled dug part is (30-40) yrs. old.
dug part - Oct. '32 Elev. above sea level top of well _____
Depth dug 24 ft. & drilled 80 ft. farther.
Log Water from sand vein ? ? ? ?
Sand water vein at 52 ft. ? ? Has never been dry.
Were drill cuttings saved No Where filed ✓
Size hole 3'-4' If reduced, where and how much at 24 ft to 5"
Casing record 5" casing from 23 ft level for 80 feet.
Distance to water when not pumping 15'-16' average Distance to water is unknown
feet after pumping at _____ G. P. M. for _____ hours.
Reference point for above measurements ground surface
Type of pump hand Distance to cylinder 4'-5' ? ?
Length of cylinder 10"-12" Length of suction pipe below cylinder ✓
Length stroke 5.5" Speed ✓
25 - cattle
Hours used per day 100 - hrs Type of power windmill
Rating of motor ✓ Rating of pump in G. P. M. 4-5 ? ? ? ?
Can following be measured: (1) Static water level No
(2) Pumping level No (3) Discharge yes
(4) Influence on other wells nothing known
Temperature of water ✓ Was water sample collected No
Date _____ Effect of water on meters, hot water
coils, etc. slight yellow ring in water pitcher
Date of Analysis _____ Analysis No. _____
Recorder George H. Coady
Date January 9, 1934

City _____ County Edgar Paris Twp.
Section 9 Twp. No. 13 N Range 12 W
Location (in feet from section corner) 2904 ft. S & 195 ft. E. of N.W. Sect. corner.
Owner Jas. Marrs Authority Jas. Marrs
Contractor unknown Address xxxx
Date drilled Dug part very old---30 yrs.??
Bored part in 1931 Elev. above sea level top of well _____
Depth Dug 26 feet and bored 12'-14' farther
Log in the bored part an extremely hard clay was struck

Were drill cuttings saved no Where filed xxxx
Size hole 6 ft
8" If reduced, where and how much see diagram on back
2"
Casing record brick for dug part
Distance to water when not pumping 19.5 ft. Distance to water is xxx
feet after pumping at xxx G. P. M. for xxxx hours.
Reference point for above measurements ground surface
Type of pump hand Distance to cylinder xxxx
Length of cylinder xxxx Length of suction pipe below cylinder xxxx
Length stroke 6" Speed xxx
Hours used per day xxx Type of power xxx
Rating of motor xx Rating of pump in G. P. M. xxx5 ????
Can following be measured: (1) Static water level yes
(2) Pumping level no (3) Discharge yes
(4) Influence on other wells nothing known
Temperature of water unknown Was water sample collected no
Date xx Effect of water on meters, hot water
coils, etc. nothing known
Date of Analysis _____ Analysis No. _____

Recorder George Thos. Coady,

Date Jan; 18, 1934

City _____ County Paris Paris Twp.
Section 9 Twp. No. 13 N Range 12 W
Location (in feet from section corner) 580 ft. N. and 660 ft. E. of S.W. sect. corner.
Owner Chas. Bussart Authority Chas. Bussart-owner
Contractor unknown Address xxx
Date drilled very old- a guess couldn't be made Elev. above sea level top of well _____
Depth 18 ft.
Log clay bottom-nothing else known

Were drill cuttings saved no Where filed xx
Size hole 6 ft. dia. If reduced, where and how much no reduction
Casing record xx
Distance to water when not pumping 6 ft. Distance to water is xx
feet after pumping at xx G. P. M. for xx hours.
Reference point for above measurements ground surface
Type of pump none used Distance to cylinder xx
Length of cylinder xx Length of suction pipe below cylinder xxx
Length stroke xxxx Speed xxx
Hours used per day xx Type of power xx hand
Rating of motor xxx Rating of pump in G. P. M. xxxxxx
Can following be measured: (1) Static water level yes
(2) Pumping level yes ?????????? (3) Discharge yes
(4) Influence on other wells nothing known
Temperature of water unknown Was water sample collected no
Date xx Effect of water on meters, hot water
coils, etc. nothing known

Date of Analysis _____ Analysis No. _____
Recorder George Thos. Coady,
Date Jan. 13, 1934.

City _____ County Edgar Paris Twp.
Section 10 Twp. No. 13 N. Range 12 W.
Location (in feet from section corner) 2620 ft N. & 1340 ft W. of S.E. Corner
Owner Mrs. E. Hybarger Authority Mr. Davis - Son-in-law & tenant.
Contractor unknown Address _____
Date drilled ± 30 yrs ago Elev. above sea level top of well _____
Depth 20 ft.
Log sand vein in bottom Note diameter
Has never been dry. Can be dipped dry to clean.
Were drill cuttings saved No Where filed 11
Size hole 9 ft dia. If reduced, where and how much none
Casing record brick
Distance to water when not pumping 8 ft average Distance to water is unknown
feet after pumping at 11 G. P. M. for 11 hours.
Reference point for above measurements well top
Type of pump hand Distance to cylinder 6 ft.
Length of cylinder 1 Length of suction pipe below cylinder 12 ft.?
Length stroke 1 Speed 1
Hours used per day 20 hrs. of stock Type of power hand.
Rating of motor 1 Rating of pump in G. P. M. 4-5 ????
Can following be measured: (1) Static water level yes
(2) Pumping level no (3) Discharge yes
(4) Influence on other wells nothing known
Temperature of water 1 Was water sample collected No
Date _____ Effect of water on meters, hot water
coils, etc. nothing unusual noted - nothing known as to hardness.
Date of Analysis _____ Analysis No. _____
Recorder George Thos. Loady
Date March 1, 1934